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ABSTRACT

Thirty-three supplementary teaching activities are provided to complement existing curricula related to food. Content covers food production and distribution, nutrition, food shortages, food habits, meal planning, and other topics appropriate for secondary and adult programs. Although the objectives are varied for each lesson, taken as a whole they emphasize discovery skills, values and values clarification, and knowledge of food issues and related concepts. Teaching strategies include discussion based on starter activities, simulation, role playing, and use of community resources. Each activity specifies objectives, teaching time, materials, procedures, evaluation, and further suggestions. Most of the materials are handouts, which are appended. For example, an activity stressing awareness, values, and critical thinking makes use of a personal food survey to help students determine personal and community eating patterns. Another activity emphasizes values, nutrition, and food distribution through student documentation of food waste within their homes. Global issues of poverty, malnutrition, and disease are also studied. Two bibliographies identify 20 organizations with information on food and hunger and 32 food resources such as books, kits, and journals. (Author/AV)

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TEACHING ABOUT FOOD AND HUNGER

- 33 ACTIVITIES -

by George G. Otero and Gary R. Smith

ENVIRONMENTAL EDUCATION SERIES VOLUME 1.

SO 009 966

Center for Teaching International Relations
University of Denver

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This volume contains all teacher instructions and student materials necessary for classroom use.

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INTRODUCTION TO TEACHERS

This volume contains a wide variety of supplementary teaching activities designed to complement existing curricula related to food and food issues. It is not intended to be used as a text or self-contained unit. Some activities are discussion starters, some present factual data, some focus on critical thinking skills and some are simulation games. There are activities to help teach food production and distribution, nutrition, food shortages, food habits, meal planning, and other food topics currently being dealt with in junior-senior high schools as well as in community groups.

OBJECTIVES

Because of the supplementary nature of these activities, the objectives are varied for each lesson. Taken as a whole, the activities attempt to reach objectives in three areas--discovery skills, values and values clarification, and knowledge of food issues and related concepts.

Discovery Skills

Skills emphasized in these activities are as follows:

1. Collection of Data
2. Data Analysis
   - A. interpretation
   - B. synthesis
   - C. application
   - D. evaluation
3. Hypothesis formation
4. Hypothesis testing
5. Interpretation of graphs and tables
6. Decision-making

No single activity teaches all of these skills. However, many of the lessons include one or more of them.

Values

Values clarification objectives are as follows:

1. Examining values in light of new evidence
2. Verbalizing value positions when appropriate
3. Choosing from alternative values when appropriate
4. Acting on values in light of new consciousness about food and hunger issues

Knowledge

1. Participants will be exposed to the major food and hunger issues of today's world: conflict between "haves" and "have nots," production and distribution issues, consumption patterns, distribution problems, value dilemmas, and population/food ratios.
2. Participants will articulate food and hunger issues within the framework of eleven principle concepts: nutrition, awareness, perception, power, poverty, values, critical thinking, interdependence, distribution, decision-

making, and conflict.
(See Organizing Concepts section of this introduction for explanation of each of these concepts.) These concepts provide the means for analyzing food issues.

TEACHING STRATEGIES

These activities depart from the standard expository didactic approaches found in most curriculum materials. Whenever possible, students are presented with opportunities to experience hunger and related feelings. Moreover, the variety of strategies employed departs from the "read and recite" format of many materials on the market.

Many activities employ discussion as their primary teaching strategy. However, instead of simply giving students a topic or issue to discuss, the lessons provide an activity or starter exercise to spur interest in the topic or issue. Discussion can then proceed with more enthusiam. Other teaching strategies used are simulation, gaming, role-playing, and use of community resources.

ORGANIZING CONCEPTS

Eleven concepts are used to identify the activities. Each activity is labeled with the appropriate concepts it uses in the upper right hand corner. A brief explanation of each concept follows:

Awareness - Activities labeled "awareness" are designed to raise the level of consciousness of participants about a particular theme or topic related to food. Since many of the activities are starter-type exercises, most of them carry the awareness label.

Perception - Activities with this label get at how and why people interpret data differently. Since most food problems are multi-sided political, social and economic issues, these particular activities are useful in helping your group recognize differences in perception of those issues.

Values - Much attention is devoted to identifying value positions in these activities. Since values are rooted in the affective domain, opportunities for questioning and examining feelings and beliefs are built into the lessons. Exploring values--what it is that people want, believe in and cherish--is a necessary step in the decision-making process. Two major strategies are used in clarifying values--rank ordering and forced choice.

Decision-making - Many activities are useful for helping students develop and use decision-making skills. Lessons are structured so that students are faced with value dilemmas and with practicing give and take in group discussion and decision-making. Particular attention is given to the use of limited data and the role of unknowns in making decisions.

Critical thinking - Although more of a skill than a concept, critical thinking is identified as one of the organizers of these materials because of the importance of it for citizenship. Critical thinking refers to cognitive processes that are at a higher level than mere retention of information. Interpretation, analysis, synthesis and evaluation are emphasized in many of the activities. Critical thinking also implies that students gain practice in applying knowledge and skills to problem-solving.

Power - A few of the activities in this volume attempt to examine the role of political and economic power in food distribution, as well as the role of personal power in decision-making and effecting change. No attempt is made to define the concept. The focus is on making students aware that power operates at both a personal level and a systems level.

Poverty - Much attention is given to the disparity between "haves" and "have nots" as it is related to hunger. Simulation and discussion activities provide bases for examining the notion of relative deprivation and its effect on solving hunger problems.

Nutrition - Teachers and group leaders interested in focusing on nutrition and food will find activities devoted to this topic. Alternative food sources are raised for discussion and experimentation in one activity. Other activities labeled "nutrition" emphasize food waste, nutritional deficiency, types of food, meat substitutes, calorie counting, and questioning the assumption that simply having more food means that people are necessarily "better fed."

Interdependence - Some of the activities focus on the notion that the factors of food production, distribution and consumption are interrelated. Other activities designated "interdependence" emphasize that humankind's problems and humankind itself are mutually dependent on each other for solving food problems. This concept is also developed in terms of its relationship to decision-making.

Distribution - This is a key concept in considering food issues related to poverty and hunger. Activities with this label ask students to examine a variety of distribution systems as well as consider who gets what resources and why.

Conflict - Food issues and problems can provide a catalyst for various parties and nations to be in conflict. At one end of a continuum lies pure conflict, and at the other end lies pure cooperation. The conflicts generated by food, hunger and poverty lie somewhere between these two extremes. A teacher or group leader who wishes to examine this concept and its relation to food and hunger should consider using the activities labeled "conflict" and "values."

WHEN AND WHERE TO USE THE ACTIVITIES

These activities are designed to be used with adult audiences and in junior and senior high schools. Most of the materials are easily adaptable for use in upper elementary grades as well.

In the school curriculum they are appropriate supplementary materials in just about any course of study related to food and food issues. Specifically, they can be used in home economics, social studies, population and environmental problems, contemporary problems, government, and economics. Teachers would do well to identify which of the eleven organizing concepts they wish to stress and then choose activities labeled with those concepts.

EVALUATION

These materials have been used with a great deal of success by group leaders

and teachers in the Denver metropolitan area as well as in many other school districts in the U.S. It is our intention to continue revising and adding to the material whenever time permits. Accordingly, we have enclosed an evaluation sheet on the last page of the booklet. We encourage you to use the activities you think are most adequate to serve your needs, fill out the evaluation form, and send it to us for continued feedback. Your input will be greatly appreciated.

OVERVIEW OF ACTIVITIES

Activity #1 - WHY IS THERE HUNGER? Students brainstorm and rank order possible reasons why many of the world's people are hungry.

Activity #2 - WANTS AND NEEDS Students rank order a list of human needs to assess the role of a good diet in their lives.

Activity #3 - TRIAGE A simulation game that provides for students to understand the concept of "triage" and apply the concept to the world food predicament.

Activity #4 - CALORIE COUNTING Students document personal calorie consumption and make decisions about changes in their diet.

Activity #5 - WHAT'S FOR DINNER? Students experience identifying, planning and preparing meatless meals.

Activity #6 - COMPARING "US" AND "THEM" Students use charts to locate areas in the world where malnutrition is prevalent and compare U.S. calories and protein supply with that in other geographic regions.

Activity #7 - FOOD ACTIVITIES Presents over 30 ideas for individual study of food issues.

Activity #8 - APPLES Students decide about which distribution model is best for deciding food allocation by using an analogy with apples.

Activity #9 - INSECTS Students explore the role of cultural factors as they determine the foods we decide to eat and what foods we consider good for us.

Activity #10 - RATS Reading about the problem of rats in America.

Activity #11 - MORE IS BETTER? Uses visual demonstration to point out to students that size or amount of food is not always proportional to calorie or protein content.

Activity #12 - SUPERMARKET TASKS Students visit a supermarket to look into prices and ingredients of certain food items.

Activity #13 - RICH AND POOR Role playing activity based on the perceptions poor nations often have of rich nations.

Activity #14 - PUZZLING FOODS A word search puzzle is utilized to help students familiarize themselves with many different foods.

Activity #15 - DOTS Students draw lines between factors that affect food production to visually demonstrate the numerous and interdependent factors involved in food production.

Activity #16 - FOOD DAY PROGRAM Students plan and observe a food day for the community.

Activity #17 - FOOD TIME Students use a chart to identify the persons and time involved in gathering, growing, preparing, serving, and disposing of food.

Activity #18 - CARTOONS THAT AREN'T FUNNY Students interpret political cartoons, then try their hands at drawing cartoons of their own.

Activity #19 - PERSONAL FOOD SURVEY Students increase their knowledge about what motivates and determines their own eating habits.

Activity #20 - DECIDE-A-PLAN Given three global policies for dealing with distribution of food resources, students write a paper reflecting their views on how international shortages should be handled.

Activity #21 - FOOD POWER Students rate food policies in terms of countries and organizations that have the power to implement them.

Activity #22 - "GOOD NEWS - BAD NEWS" Information sorting activity designed to test students' values about food and hunger issues.

Activity #23 - GOBBLE DE GOOK Students sample the public's knowledge of hunger-related diseases.

Activity #24 - TECHNOLOGICAL ANSWERS Students examine and analyze some of the proposed technological solutions to food problems.

Activity #25 - WORDS AND HUNGER Demonstrates the power of words to create feelings of hunger.

Activity #26 - FOOD AID: WHERE, WHEN AND HOW MUCH? Students decide how to distribute $100,000 in food aid discussing the complexities involved in making such a decision.

Activity #27 - FOOD PILL Given a hypothetical, futuristic situation, students consider the possible effects of such a future on their food habits.

Activity #28 - DEADLINES Students evaluate the urgency of food shortages as compared with other global problems.

Activity #29 - FOOD WASTE Students evaluate and document food waste practices.

Activity #30 - FOOD CRISES: OPINION OR FACT? Students learn to distinguish between opinion and fact as related to food issues.

Activity #31 - "HO-HUM, INTERESTING FACT, THAT'S A PROBLEM!" Discussion starter and information sorting activity designed to check out perceptions of food issues.

Activity #32 - BREAD AND WATER STORIES Students write short stories regarding their attitudes toward food.

Activity #33 - DO IT! 25 action-oriented food activities.

ACTIVITY #1

Participants brainstorm reasons for hunger, then go out into the community to check the validity of their hypotheses.

PERCEPTION
POVERTY
VALUES
CRITICAL THINKING
DECISION-MAKING

Title WHY IS THERE HUNGER?

Introduction

This activity can serve as an introduction to hunger issues. There are many possible reasons why people are hungry. Moreover, people have different perceptions of those reasons. It is important that students discover, document and analyze their own perceptions if they are to critically analyze hunger issues.

In this activity students brainstorm possible explanations for hunger. The reasons they brainstorm become hypotheses to check out in the community and to validate by using activities in this book that are related to hunger.

Objectives

To formulate hypotheses about why there is hunger

To rank order hypotheses by group discussion

To check out hypotheses about why many people are hungry

Time One class period

Materials Pencil and paper for each student

Procedure

1. Ask the group to break into pairs. Tell them you would like to see which pair can come up with the largest list of possible answers to the question: WHY IS THERE HUNGER?

2. Discuss the lists if time permits. Ask the pairs to rank order their lists in the following manner:
   a. Place an X next to the two reasons they think explain why MOST hungry people are hungry.
   b. Place an O next to the reason given that best applies to people living in poor countries.
   c. Place a check (✓) next to reasons that individuals could do something about.
   d. Place a plus (+) next to reasons which indicate that it is the hungry person's fault for being hungry. Discuss the ratings.

Follow-up

Mention to the group that their reasons are simply hypotheses and they need to be tested. Brainstorm community resources they might use to verify their hypotheses. Then ask participants to go out into the community and bring back evidence and data that they can use to check their hypotheses.

ACTIVITY #2

Students discover how food and its consumption play a role in leading a happy, successful life by filling out and evaluating a personal goal sheet.	INTERDEPENDENCE VALUES

Title WANTS AND NEEDS

Introduction

In this activity students rate 18 items in terms of their importance to that person. Then the ratings are analyzed in relation to the role of food. Students then discuss the relative importance food plays in their lives both directly and indirectly. Much of the interest in food and the person's ratings will directly relate to the access that person has to different foods.

Objectives

Students will identify the items on a list that are most important to them

Students will examine the relationship between their goals and food

Students will describe the circumstances that would explain different ratings from their own, especially rankings that place food items at the top of the list

Time One class period

Materials Copies of Handout 1, "What's Best?"

Procedure

1. Hand out the sheet titled "What's Best?" Have each student fill out the survey.

2. Tally the results and get some idea of the five most important items.

3. Discuss the relationship of food to the items. For example: To have good health do you need certain kinds of food? Is a balanced diet easy or hard to get? Why do people want jobs? Is it to get food? How many of the items on the top five or ten are dependent upon or related to food? Do we tend to take food for granted?

4. Have students list the circumstances that would result in a person rating food items high on his or her list of needs. Who is responsible for these circumstances?

Evaluation

Have students place an F next to any of the top ten items on their list that depend upon food in some way. Students could be asked to give written or verbal explanations of these relationships.

Further Suggestions

Have students fill out the list for the poor, for people in other countries, or for people of different ages. What changes are there? Why? What relationship does food play in the ranking of the items for these other groups?

ACTIVITY #3

Simulation in which students act as paramedics and victims in a plane crash.

VALUES
DECISION-MAKING
CRITICAL THINKING
DISTRIBUTION

Title TRIAGE*

Introduction

Many people who examine population and food issues think there are not enough resources to go around. Some of these people have revived a concept called Triage. Triage is a French word used to identify and help injured soldiers during war time. Because of limited medical resources, injured persons were often divided into three groups. One group, who received medical attention first, was not the least or the most seriously injured, but rather the injured group which would benefit most from immediate medical attention. Such a decision was difficult but believed necessary to make under circumstances where there was limited access to medical attention. Many social scientists think this same approach could be used today in questions related to food aid.

In this activity, students simulate a medical crisis and apply the Triage approach to avert it. After the simulation, students discuss the Triage approach to population and food problems. It should be mentioned that this activity represents only one perspective on food aid, but it is one with which students should be familiar.

Objective

Given a simulated activity about victims of a plane crash and limited medical attention available to them, students will categorize the victims according to the principle of "triage."

Time Varies

Materials Set of Injury Cards (Handout 2) and red, blue, and green tags

Procedure

1. Pre-select two students who will act as paramedics and instruct them in their roles: They are to examine each victim's injury card and to tag them with a colored card according to three groups: Group I (attach a red card to all victims you decide are in this group) consists of those victims whose injuries are so severe they will die even if they are brought to the hospital quickly. Group II (attach a blue card to all victims you decide are in this group) consists of those victims who have a chance for survival if they can be airlifted to a hospital quickly. Group III (attach a green tag to all victims you decide are in this group) consists of those victims who are likely to survive even if medical attention is delayed.

*This activity was developed by Don Boeckman, Westminster Public Schools, Westminster, Colorado. Used here with permission.

2. Set the scene with the rest of the class. A PLANE WITH 25 OCCUPANTS EN-ROUTE FROM DENVER TO ASPEN ON A SKI TRIP HAS CRASHED HIGH IN THE MOUNTAINS. A LARGE MILITARY HELICOPTER WITH TWO PARAMEDICS HAS BEEN DISPATCHED TO THE SCENE. THE MEDICS ARE INSTRUCTED TO EXAMINE THE VICTIMS AND DECIDE WHICH ONES ARE TO BE TAKEN OUT ON THE FIRST TRIP, THE SECOND TRIP, AND THE THIRD TRIP. THE MAXIMUM SAFE CAPACITY OF THE AIRCRAFT IS TEN PERSONS. A ROUND TRIP TO A HOSPITAL TAKES TWO HOURS. NO OTHER HELICOPTER CAPABLE OF REACHING THIS ALTITUDE IS AVAILABLE.

3. Pass out the victims' injury cards at random and have them attached to their arm or clothing. Students may act out the injuries by lying on the floor or assuming a suitable position.

4. Paramedics examine the victims' injury cards, and attach the color coded group card.

5. Paramedics then explain to the victims what the cards mean and which ones will be taken out first, second, and third.

6. Debrief by teacher - possible probe questions:
   A. Do you think you were placed in the right group?
   B. How do you with the red tags feel?
   C. How does the rest of the class feel about the ones with the red tags?
   D. Given the limitations of the story, is there a better way to handle the rescue effort?
   E. Is there any other situation in which this kind of victims grouping (Triage) might have to be used?
   F. In what respects is Triage as practiced in medical situations similar to food aid situations? Different?
   G. Do you think Triage is a good principle to use in considering food aid? Financial aid?

Evaluation

Write an essay depicting a fictional story or an actual news story in which Triage might work when there is a shortage of available help.

ACTIVITY #4

Students document their personal calorie consumption and evaluate the role of caloric intake in a balanced diet.

DECISION-MAKING
VALUES
NUTRITION
POWER
INTERDEPENDENCE

Title COUNTING CALORIES

Introduction

As world food supplies continue to be inadequate for the growing world population, food consumption among the affluent societies becomes more conspicuous. Affluent people are, after all, most able to adjust their consumption patterns for the common good and are perhaps the only people with free choice to do so.

Americans have paid some attention to their eating habits. The overweight problem has encouraged some to take in fewer calories to lose weight. The assumption is that the amount of weight a person can lose is directly related to the number of calories he consumes. The fewer calories consumed, the more weight the person loses.

Objectives

Students will explain the place of caloric intake in their daily diets

Students will list foods they could exclude from their diets on nutritional grounds

Students will verbally demonstrate that they recognize the need for both calories and protein as measures of an adequate diet

Time One class period

Materials Copies of the Calorie Chart (Handout 3)

Procedure

1. Ask each student to list all the food and drinks they have consumed in the past 24 hours. After they have made their lists, pass out the Calorie Chart and tell them to write down the appropriate numbers of calories next to each item of food they've listed. (Some estimating may have to be done on amounts.) Each student should compute the TOTAL calories consumed for the 24-hour period. (If time permits, ask students to collect data for a week.)

2. List the number of people in the class on the chalkboard that fall into each of the corresponding categories:

   1500 calories or less per day
   1500 to 2000 calories per day
   2000 to 2500 calories per day
   2500 to 3000 calories per day
   3000 to 3500 calories per day
   more than 3500 calories per day

   Discuss the following questions with the students.
   A. What should an individual's caloric intake be?
   B. What do you know about a person if you know how many calories he or she consumes a day?
   C. Would you expect your caloric intake to stay pretty much the same? What factors affect how many calories you will consume in a day?

3. Ask the group to respond to these two questions. If a person is not getting enough calories, what does that mean? When is a person not getting enough calories?

   Students should focus on calories as a measurement of food-energy. Each person's food requirements are directly related to body weight, sex, age, level of physical activity and ability to absorb the food. Each person has a specific metabolic rate per kilogram of body weight. That rate also

determines the amount of food energy that person needs to grow and develop properly. Therefore, there is no such thing as the average daily consumption of calories needed by the average American. That is only a statistical norm. Ask students how they can know whether they are getting the proper amount of calories.

4. Caloric intake is a good quantitative indicator of diet adequacy. But protein intake, essential to body growth and maintenance, is the key quality indicator.

   Discuss with students the different types of diets that people try. You might have to give some time for further research. Which diets are oriented to the quantity a person consumes, and which are oriented to the quality?

5. The following suggestions provide other directions for this activity:

   A. Are people embarrassed about the amount of calories they consume? What could account for this feeling?
   B. Before the actual count is revealed ask the students to guess which three people consumed the most calories and which three people consumed the least number of calories. Discuss the results.
   C. Examine the foods people eat. Are most of them "junk" foods? What foods are on most people's list? How many of the items contain "empty" calories, foods that "fill you up" but have little nutritional value?
   D. Summarize in a paragraph the main features of your class's eating habits based on the discussion and data provided by this activity.
   E. Which food items are good for a person who needs calories? How many of these items are also good protein sources?

ACTIVITY #5

Students fix, serve and evaluate the taste and benefit of meatless meals. Activity allows students to practice new behaviors in the home setting.	VALUES PERCEPTION NUTRITION DECISION-MAKING CONFLICT

Title WHAT'S FOR DINNER? MEATLESS MEALS

Introduction

The U.S. public has been encouraged to eat less meat. Many reasons support this movement. The production of meat from beef and other animals results in a conversion factor often higher than 8 to 1. That means it can take eight pounds of grain, or more, (usually wheat) to produce one pound of beef. In a world where many people have nothing to eat, some people feel the high conversion rate results in a food luxury for meat eaters that is unjustified. Yet, critics point out that not eating meat will not necessarily make more grain available to the world's hungry. Such a practice may result in economic disaster for meat producers and have drastic effects on wheat prices.

Still other people approach the "do not eat meat" issue from another point of view. Meat is not the best source of protein and other important nutrients

even if Americans believe so. These advocates believe the public has been misled about the value of meat in a healthy diet. It is obvious that people have positive attitudes about eating meat, especially beef, since every year people in this country eat more and more beef, according to per capita consumption figures. The purpose of this activity is not to decide which point of view is correct. The purpose of the activity is to expose students to ways of planning and eating a variety of meatless meals. Many persons do not think it possible to have an enjoyable, tasty meal without meat. This experience will broaden their perspectives and enlarge recipe books for a time to come when, for whatever reasons, meatless meals become the rule and not the exception.

Objectives

To give students experience in identifying, planning, and preparing meatless meals

To record the reactions of others to a week of meatless meals

To enlarge the students' knowledge of the variety and taste of meatless meals

Time One week

Materials Record sheet of meatless meals (Handout 4)

Procedure

1. Point out to the students some of the issues raised in the introduction.

2. Have students plan one week of evening meals that do not include beef, pork, chicken, lamb, turkey or other meat sources. This includes fish. Plan the meals, obtain the food, and prepare and eat the meals.

NOTE: Find out the nutrient contents of the foods and try to make sure proper nutritional needs are met in the meals. This may not have been accomplished in the regular eating habits but should be considered in the project.

3. Record the reactions of the students to the meals. Keep a file of meatless meals. Share these recipes with the group.

4. Discuss reactions to the meals with the rest of the group. Did attitudes about meatless meals change? Do you still prefer meals with meat? Why? Under what circumstances would you consider eating one meatless meal a week? two, three, four, five? How many meatless meals does your family now eat? Will this experiment have any effect on your eating habits?

Further Suggestions

1. Drop fish from the list. Many families eat limited amounts of fish although fish is probably the biggest protein source in the area of meat.

2. Create a meatless meal cookbook. Try to print it and sell it in your community.

3. Document the effect of eating meatless meals on other aspects of your family's food habits such as grocery bill, house odors, preparation time, etc.

4. An excellent source for students doing this activity is Diet For a Small Planet, by Frances Moore Lappé, Ballantine Books, Inc./Cookbook 1975.

ACTIVITY #6

Participants read and interpret a calorie and protein chart comparing the U.S. with other parts of the world.	AWARENESS PERCEPTION CRITICAL THINKING POVERTY

Title COMPARING "US" AND "THEM"

Introduction

Starvation is only part of the problem caused by the scarcity of food and the inability to adequately distribute food which is available. A less publicized but equally critical problem is the effect of malnutrition on those people who do not quite starve to death, but live near the brink of starvation for most of their lives. While death ultimately may not be directly attributed to starvation in these cases, life expectancy has been shortened due to malnutrition. Susceptibility to disease in such conditions is also much greater. Finally, physical and mental damage caused by insufficient protein in preschool children is irreversible despite subsequent diet or medical care. These victims of malnutrition are a major concern to the world not only because they are suffering, but because they represent a legacy of human life that is not consistent with what we usually consider acceptable standards of living. This exercise is primarily an informative one to help individuals become aware of the extent of the malnutrition problem in the world.

The main concept developed is perception/misperception. An effort is made to guide individuals in confirming valid perceptions of the world hunger situation and in dealing with existing misperceptions.

Briefly, this activity relies on interpreting data from a bar graph about human calorie and protein consumption patterns in the world. This information is then used to draw conclusions about existing needs.

Objectives

After completing this activity each student will be able to:
1. Use a simple bar graph providing population data,
2. Name several areas of the world where malnutrition is clearly a significant limitation to human development and several areas where most of the population receives an adequate or better diet, and
3. Explain possible limitations of using data of this nature.

Time 30 minutes

Materials Calorie and Protein Supply graph (Handout 5) for each student

Procedure

Pass out the graphs and ask the group to study them. Point out the amounts required for the average daily adult diet (see background notes at bottom of graph) and then ask the group to answer the following:

1. Can we assume from the graph that everyone in North America and Western Europe is adequately fed? If we know from general knowledge that there are significant exceptions to the pattern portrayed about the U.S., what similar conclusions can we draw about some of the areas that clearly show dietary problems on their graph? (Some people eat much better than others.) Can the full implications of problems be determined by the data available? What additional information may be needed?

2. Recognizing the limitations of the data provided, there are still many conclusions that can be drawn. What areas of the world have clearly the greatest dietary problems? Does this coincide with rapidly growing populations? (Yes) What prospects exist for the future given the above two answers?

3. What other significant information can be learned from the graph? Consider the proportion of animal protein consumed to other protein. What may be some reasons for the differences? Religious taboos are an obvious answer. An equally important answer to articulate is the costs of raising animals for consumption. Poorer nations simply cannot afford to feed cattle food that can be readily consumed by humans, giving them greater total food quantity than the final grain-fed animal product.

Further Suggestions

The group may be motivated to do some research on nutrition or invite an expert on nutrition to speak. Some important questions left unanswered by this exercise are: Is meat the best source of protein? What is an adequate balance between meat and vegetable protein? Are Americans really better off because their consumption exceeds the required amounts?

ACTIVITY #7

Provides a list of activities from which students can choose. Focus is on awareness.	VALUES AWARENESS DECISION-MAKING

Title FOOD ACTIVITIES

Introduction

This activity uses an individualized format. Students are provided with a number of ideas for exploring issues and topics involving food. Students may use these ideas in many ways. Some of the uses are discussed in the activity.

Objective

To provide a variety of ideas for studying food issues

Time Depends upon each student

Materials Duplicate copies of the Food Activities (Handout 6) for student reference

Procedure

There are a number of ways to use the food activities:

1. Hand out the list of ideas and have the students decide which activity should be done first by the group. Ask students to share their ideas about what is important to know about food. The ideas could be categorized in a number of other ways:
   A. Which are easiest to do?
   B. Which take the most time?
   C. Which ideas provide lots of facts? Opinions? New ideas?

2. The activities could be written on cards and handed out to the group encouraging the students to complete as many of the actions as possible.

3. One activity could be given to the entire group to complete at the same time.

4. The group could read over the duplicated list of ideas and then generate new ones. These could be compiled and added to the list.

5. The ideas could be displayed on a bulletin board. Then new food ideas could be added. As students finished a task they could initial the bulletin board or put things they had done on the bulletin board next to that particular food idea.

ACTIVITY #8

Simulated experience in which students decide how to divide only three apples amongst the entire group.

DISTRIBUTION
VALUES
DECISION-MAKING
PERCEPTION
POWER
CONFLICT

Title APPLES*

Introduction

One quick way of encouraging students to examine models for distribution of scarce resources is outlined in this activity. The grocery sacks (see below for details) can represent any number of kinds of leaders--political candidates,

*Developed from an idea suggested by Bob Clifton, Metro State College, Denver, Colorado.

lifeboat captains, spaceship captains, etc. The activity is written up as if the sacks stand for political candidates. The idea is to get students as involved as possible in considering value questions regarding the distribution of a scarce resource, in this case, apples.

Objectives

To reach consensus on a method of distribution and articulate reasons for doing so to the rest of the class

To recognize that personal and cultural values play a significant role in determining which system of distribution groups of students will choose

To make analogies between the activity and distribution systems throughout the world

To recognize the complex nature of deciding which kind of distribution system would be "best" for a group of people

Time One class period

Procedure

Step 1 - Buy seven large grocery sacks and three large, juicy apples. Using various colored marking pens, draw faces on each of the seven sacks. Make each face as distinctive as possible. The open ends of the sacks should face upward.

Step 2 - With a marking pen, make a sign for each candidate based on the information below. Be sure to print and to make each sign legible enough for the entire class to read. Then, place one of the signs in each of the seven sacks. (Each sign stands for the "platform" of one of the seven candidates.) It would be best to keep the sacks and signs in the order suggested below.

Candidate #1: "I would give the apples to the three people in class who worked hardest during the year."
Candidate #2: "I would go get some more apples until we had enough for a party."
Candidate #3: "I would sell the apples to the highest bidder."
Candidate #4: "I would divide up the apples equally so that everyone in the class would get an equal amount."
Candidate #5: "I would save the apples until we really needed them."
Candidate #6: "I would give the apples to the three hungriest people in class."
Candidate #7: BLANK SIGN

Note: You might want to suggest the day before the activity that students not eat on the day of the exercise.

Step 3 - Display the three apples and the sacks (signs inside) on a desk or a table in front of the room. Explain to the class that they are to decide on a distribution system for the entire group.

Step 4 - Introduce each of the seven candidates, one at a time, in the order given above. As you introduce each one, take the sign out of the sack and read and show it to the class.

Step 5 - Break class into groups of four. Have each group reach consensus on one of the candidates. The seventh candidate, or the one with the blank sign, can be used for students to make up a platform. Each group should spend about ten minutes reaching consensus and preparing a one-minute talk on the candidate they've chosen to support.

Step 6 - Allow time for each group to give their talks. After all groups have given their talks, you may wish to conclude the activity by taking a class vote on each of the candidates, then distribute the apples according to which candidate or idea gets the most votes. In any case, however the class decides to choose a distribution system for the entire group, you should let them follow through and actually distribute the apples in the manner chosen.

Discussion

1. It has been an attitude of many Americans that other countries have trouble feeding and clothing their populations because they don't know or can't decide (or can't implement) an "adequate" distribution system. Which system of distribution would you suggest for them? Did the class, as a class, reach consensus on the ideal distribution method? (Students should see that there are no right answers to this human dilemma, that the U.S. has certainly not decided on a single best method, and that value questions are an essential component in making decisions regarding distribution.)

2. Which candidates might represent what kinds of political, economic and/or philosophical positions? (Possible answers: #1 = Puritan ethic; #2 = Hedonistic; #3 = capitalistic; #4 = Commune; #5 = "Food Bank" idea; #6 = Marxist)

3. What other distribution systems can you think of besides those mentioned in this activity? (Possible answers: TRIAGE SYSTEM = divides needy countries into groups according to their needs for food and food aid. Under this system, some people are completely left out (the most needy) and receive no food aid although they need it. Its supposed benefit is that crucial food surpluses would not be wasted on nations or peoples who have no chance for survival. "LIFEBOAT" APPROACH = coined by Garrett Hardin, this idea has the apparent disadvantage of denying food aid to the needy in an attempt to save the rich nations. Its apparent advantages are that it does not endanger the rich nations in times of crisis and does not attempt the hopeless task of feeding everyone.**)

**This explanation is based on information from "Explorations in the Emergent Present," Robert Hanvey, INTERCOM, No. 77, p. 40.

ACTIVITY #9

Students reflect upon reasons why they would or wouldn't eat insects as an alternative food source.	AWARENESS PERCEPTION VALUES NUTRITION

Title INSECTS

Introduction

How many things, plant or animal, could we eat that we don't eat now? In this activity students read about insects as food sources and are encouraged to try a couple of activities. These could broaden our conceptions about what is edible, although the activity experiences probably will not change eating habits. To do that we would need to examine many other factors as they affect our values, culture, and life styles.

Objectives

To demonstrate that what we eat is determined by many factors

To demonstrate that many other items are edible that we may not have considered edible

To try out a food that is now to the students and to record and discuss the reactions

Time One class period

Materials Copies of "Food For Thought", Handout 7, for each student

Procedure

1. Hand out the reading to the class. After they have read the article ask them to explain why they would or would not eat an insect. Do not judge the responses. Ask students to try to identify something they eat that other people might not want to eat or might see as strange. Have the students list other plants or animals that they don't eat that might be good to eat. Have students check out these foods to see if they are edible.

2. Have the students do either or both activity A or B listed below. Share and discuss the results after students have completed the activities.

   A. Serve commonly available foods which have never been served in your home before. In some homes, tropical fruits such as papayas, mangoes, pomegranates, guavas, etc. may be new. Record your family's reactions.

   B. It is the year 2014. Write an ad for a snack product introducing a new, high protein food source for the first time -- insects. The ad will appear in a food-oriented consumer magazine like FAMILY CIRCLE. It is your task as the ad writer to make the new product appealing and highly marketable.

ACTIVITY #10

Students read about and discuss the problem of rats in America.

AWARENESS
VALUES
PERCEPTION
POVERTY
CONFLICT

Title RATS

Introduction

One of the most unbearable ironies many poor families face is the presence of rats in the face of their own hunger. Rats are the poor's enemy. Because the poor and hungry are affected more than the rich and full, little is done by the government to alleviate the problem. In this reading students are exposed to one of the more frustrating experiences associated with hunger--RATS.

Objectives

To read about the immense problem rats pose for the poor

To discuss possible reasons for the existence of rats among the poor.

Time One class period

Materials Copies of Handout 8, "Rats," for all the students

Procedure

1. Distribute copies of the reading. Ask students to read the article.

2. Discuss the following questions:
   What is your reaction to the reading?
   Why isn't something done to eliminate the rats?
   What would you think of a government that allowed rats to survive while your children died?
   Have you ever seen a rat?

Follow-up

On the first page of the reading are a series of statements about rats. Ask for students to react by show of hands to each statement in one of the three following ways: "Ho-Hum"; "Interesting Fact"; "That's A Problem." Discuss the varying responses to each statement.

ACTIVITY #11

Students compare quantity of food with quality to determine which is best for them and which is emphasized by advertisers.

AWARENESS
PERCEPTION
NUTRITION
DECISION-MAKING
DISTRIBUTION

Title MORE IS BETTER?

Introduction

Is a one-pound steak better for you than four ounces of fish filet? Does one cup of butter contain more calories than one cup of ice cream? People often confuse quantity with quality. The assumption is that the more we eat, the better we eat. This activity demonstrates that how much one eats is not as important as what one eats.

Objective

To visually demonstrate that amount of food is not necessarily proportional to nutritional content

Time One class period

Materials Calorie Chart (Handout 3)

Procedure

1. From the calorie chart determine how many calories there are in a cube of butter. Ask students to obtain equal amounts of other foods in calories. For example, how much spinach would it take to equal the calories in a cube of butter? How many potatoes? Carrots? Make a display illustrating the comparisons. If students do not wish to bring in actual foods, ask them to make charts or drawings that illustrate the comparisons.

2. Ask students to plan menus which focus on quality of food--nutritional value--instead of quantity. Ask volunteers to eat according to the menus for a week. Then, ask them to report at the end of the week how they feel and if they're less satisfied or more satisfied with the portions and quantities they've eaten.

Evaluation

Find evidence in your community that food is advertised in terms of quantity instead of quality. Then discuss: OUR ECONOMY IS GEARED TO SELLING QUANTITIES OF FOODS AT THE EXPENSE OF QUALITY.

ACTIVITY #12

Students visit a local supermarket to document prices and ingredients of food items.

AWARENESS
VALUES
CRITICAL THINKING
NUTRITION

Title SUPERMARKET TASKS

Introduction

This is an awareness activity designed to get students thinking about some of their food consumption and buying habits. Students have the opportunity to relate their findings to consumer habits and values that may otherwise be taken for granted.

Objectives

Students will visit one or two local supermarkets and list the ingredients and prices of certain food items.

Students will discuss their findings with the rest of the class and have an opportunity to relate these findings to their personal and family food buying habits.

Time Two class periods

Materials Copies of Handout 9, "Supermarket Tasks."

Procedure

1. Distribute copies of the handout "Supermarket Tasks."

2. Allow about 10 minutes discussion for deciding which students would like to do which tasks on the handout. Inform the students that the nine tasks on the handout are only suggestive of the many things that could be done using a supermarket. You might want to spend more time brainstorming other possible tasks and deciding who would like to do them.

3. Visit one or two supermarkets to complete the tasks decided by your class in Step 2.

4. Allow at least 30 to 40 minutes to discuss students' findings. What things did students find out that they had never before realized?

Evaluation

What changes in food buying and consuming habits would students consider making as a result of doing the tasks in this activity?

ACTIVITY #13

Simulated experience which has students experience being poor in the midst of affluence.

CONFLICT
VALUES
AWARENESS
POVERTY
DISTRIBUTION

Title RICH AND POOR

Introduction

It is difficult for people living in affluent conditions to empathize with those who are poor and hungry. Moreover it is difficult for affluent peoples to get in touch with the feelings of animosity many poor peoples have for them. This activity is designed to simulate a "confrontation" between "haves" and "have nots."

The organizing concept of the activity is conflict/conflict resolution.

At the beginning of the exercise students are randomly divided into two groups. Then they pursue activities planned by the teacher while two pots of food are heating at the back of the room. Following the activities students are to be fed. A small number of people (the "rich" group) receive large portions of a very tasty meal while most students (the "poor" group) receive limited portions of CSM.

The teacher needs to select another activity from this packet for students to do while the food is cooking.

Objectives

As a result of completing this activity, students should be able to:

1. Describe the feeling created by having little in the presence of abundance or vice versa.
2. Suggest potential responses by poor nations toward the affluent nations.
3. Articulate policies that would lead to better relationships between rich and poor nations.

Time One or two hours

Materials Cards containing random numbers. No more than one card with a number below 10 for each 15 people. Plates and spoons for everyone. Food as described in the activity in sufficient amounts along with two kettles and two hot plates.

Procedure

1. This activity will be most effective if it is scheduled when students are hungry.

2. Before students arrive, prepare two kettles of food which later will need only to be heated. One kettle should be CSM (see included recipe) in a quantity sufficient for about one cup per person in the "poor" group. The other kettle should contain a stew or casserole that is virtually a complete meal and will give off a tantalizing aroma while it is heating. The food should be heating throughout the session, but the group should not be permitted to investigate, which may be easier if the kettles are not turned on until the group is in and seated.

3. As the group arrives, ask each person to draw a card. Explain that this card is their meal ticket and they will not be served if they don't have it.

4. Proceed with the other activity, which should take about an hour.

5. By the time the activity is over, the aroma from the food should have everyone hungry. Ask them to line up so they can pick up a plate and utensils before passing the kettles, with their meal tickets ready since they determine which menu is served. As they submit their meal tickets, those with a number of 10 or more will be served a cup of CSM. Those with a number less than 10 will be served from the pot of tasty food.

6. While people are eating, the teacher should carefully observe the activity and discussion. When people have had ample time to eat (and the rich may even be allowed second portions) a debriefing of the experience should take place.

Debriefing

This section is largely contingent upon what happens during the meal. Did the rich share? How did the poor treat the rich?

Some suggestions to use as springboards for discussion are listed below. However, a sensitive teacher will move from them to other areas raised by the group. Also, the teacher may want to ask specific individuals to explain comments or actions they took that are not anticipated in the following questions:

1. To the poor--How did you feel when you saw what you had for a meal? How did feelings compare between those served before any of the rich and those served after the rich?
2. Once it became apparent the menus were radically different, how did those not yet served feel as they approached the server?
3. How did the rich feel when they discovered which group they were in?
4. How did the rich feel once they began eating in the midst of the poor? Or if they sat apart, why?
5. Why did the rich choose to share--or not share?
6. How did individuals of each group feel toward the others?

Ultimately, the teacher must keep in mind his ultimate goals for the session, and, while individual groups will wander from the above questions to deal with their own unique experiences, the group should eventually be pulled back to the following:

1. What was realistic about the experience? What was unrealistic?
2. Was there a better way to deal with the problem?
3. How are our actions comparable to policies between nations?
4. How could these policies be improved?

- -

CSM AND OTHER TASTY RECIPES...

(Blended Food Product, Formula No. 2):

WHAT IT IS:

CSM is a mixture of 64% processed (precooked) cornmeal, 24% toasted defatted soy flour, 5% nonfat dry milk, with added oil, vitamins and minerals. It is a highly nutritious supplementary food, particularly for infants and children in a low protein status. The calorie value of CSM is about 1698 calories per pound. It contains 20% protein and the Protein Efficiency Ratio (PER) is 2.48, compared with 2.50 for casein. CSM is almost completely precooked. It is bran-free, bland in flavor, and smooth in texture.

WHAT IT DOES:

CSM may be used to prepare simple soups and gruels, or porridges. CSM may be

baked, fried or steamed. When mixed with water, CSM forms a smooth dough. CSM can also be prepared as a dessert or beverage.

GENERAL INSTRUCTIONS:

Always mix CSM with cold water. It is best to first place the water (with salt to taste) in a bowl, and then slowly add the CSM while stirring. Cooking time for soups and gruels will be from 2 to 8 minutes at sea level, depending upon the size of the cooking utensil and the heat of the fire. Always continue stirring while CSM is boiling. Cook until smooth. Consistency may be varied by increasing or decreasing amount of water used.

RECIPES:

SOUP

1 cup CSM
6 cups cold water
salt to taste
seasonings, vegetables, meat, stock

Place water in a bowl. Slowly add the CSM, stirring. Heat mixture to a boil, stirring constantly. Add other ingredients as available, to taste. Cook until smooth, from 2 to 8 minutes. If soup is too thick, add more water.

BEVERAGE

Follow instructions given for soup, but use 8 or 9 cups of cold water, depending on consistency desired. Add sugar and flavoring to taste. Serve hot or cold.

GRUEL OR PORRIDGE

1 cup CSM
4 cups cold water
salt, sugar to taste

Place water in a bowl. Slowly add the CSM, stirring constantly. Add other ingredients, heat to a boil, stirring constantly. If gruel is too thick, add more water. When mixture is smooth, remove from fire, and serve.

PUDDING

1 cup CSM
4 cups cold water
1 cup sugar
few drops vanilla or spices

Place water in a bowl. Add CSM slowly, stirring constantly. Place on fire. When mixture starts to boil, add sugar. Continue stirring until boiling starts again, cook until smooth, then remove from fire. Add vanilla or other flavoring. Serve hot or cold.

BASIC DOUGH INGREDIENTS

1 and 1/3 cups CSM
2/3 cup wheat flour
½ cup lukewarm water
½ ounce yeast + 1 tsp. sugar + ¼ cup lukewarm water

A Suggestion----------Why not substitute CSM for the regular lunch at your school or business and send the saved $ to the world's hungry through an organization of your choice. One such organization is UNICEF, 331 E. 38th St., New York, NY 10016.

ACTIVITY #14

Students use a word search puzzle to familiarize themselves with basic foods.	AWARENESS NUTRITION PERCEPTION

Title PUZZLING FOODS

Introduction

Games are often good methods to familiarize people with new information or to review important concepts. In this activity students fill in a word search consisting of 45 vegetables, fruits, and grains. Students then learn more about those that are unfamiliar.

Objective

Using a game, students will locate 45 different fruits, vegetables and grains and will learn more about any item unfamiliar to them.

Time One class period

Materials Copies of Handout 10, "Food Maze"

Procedure

1. Hand out the food maze. If you like, you can promote competition by having peers compete against the clock. Make up your own rules. Otherwise just encourage the students to find as many of the items as possible. Such an activity is useful when it is difficult to get a group presentation to work or when individual students want or need something to do.

2. You can stop with Step 1 but we suggest these follow-up activities:
   A. Have students list the foods they have never tried. Have them try one of these new foods. Have the students look up the facts about a food they had never heard of until doing the puzzle.
   B. Have students rank order the items according to nutrition, familiarity, group use, color, etc.

C. Have students create their own puzzles that will help review or introduce new food items into the vocabularies of students.
D. The students could make meals using just the items in the maze.
E. Have students find at least 15 ways to categorize the foods into two or more groups. Examples: nutritious vs. junk food; green, yellow, red; grown underground vs. above ground; vegetable vs. fruit; etc.

ACTIVITY #15

Students stand in a circle and connect themselves with string to represent the interdependence of food production factors.	INTERDEPENDENCE AWARENESS DISTRIBUTION

Title DOTS

Introduction

Many people would like to believe that food production is a simple process. Farmers plant the seeds, fertilize them, care for the plants, cut the crop, and sell it to distributors who then package and distribute the food through supermarkets. Faced with the question of increasing food production, they say plant more seeds, use more fertilizer, or offer other solutions that reflect our knowledge of the food production system. But the production system is more complex and interdependent than most people care to imagine or to investigate. In this activity participants learn more about the complex interactions between factors affecting food production.

Objectives

To familiarize students with the many factors that interact to produce food

To encourage students to identify the interactions and relationships among the factors

To visually demonstrate the complex interdependence of food production factors

Time One class period

Materials A copy of Handout 11, "Connect the Dots" for each pair of students

Procedure

1. Ask the group to list all the factors they can that determine how much food will be produced in any one year. (e.g., water, soil, marketing)

2. Then divide the group into pairs and give the handout to each pair. Ask the pairs to connect any two factors that are related to each other (that act on each other) by drawing a line from the dot of one factor to the dot of the other factor. You might wish to increase the complexity by adding directional arrows to the lines indicating the direction of the relationship between the two factors.

3. You might ask the students to compare charts. Did most people agree on the connections? You might draw the connections agreeable to all on an overhead transparency. Now point to one of the factors. Describe a change in that factor. How would this change affect other factors? How could it affect food production?

4. Have students compare their worksheet to the list of factors they compiled at the beginning. What conclusions can students draw about what they knew about food production before and after the session?

Further Suggestions

If you would like to make a more graphic visual demonstration of the interdependence of food producing factors, try this approach to the activity:

1. Assign a factor to each individual by writing the factor on a large card. Randomly hand out the cards to the students. Pin the card to the person so that everyone can tell what factor that person has.
2. Then, ask the students to stand in a circle. Begin with one factor asking the group if that factor is related to any other factor. As people mention relationships that the group agrees exist, connect the two factors with string. At the end of the session you will have a tight web of string connecting the factors. You can demonstrate the interdependence by having one factor drop his grip on the string, showing how the loss of that factor loosens the tight bond.

ACTIVITY #16

Students organize a food day program for community awareness of food issues

AWARENESS
INTERDEPENDENCE
DECISION-MAKING

Title FOOD DAY PROGRAM

Introduction

Last year a national food day was observed across the nation. The idea was to inform the American public on many of the food issues that should be of concern to all citizens. In this activity, groups could organize and implement their own food day. Food days on local or group levels might serve the educational functions that the national food day attempted.

Objective

To spend a concentrated amount of time on food issues by planning and observing a food day

Time One day

Materials Copies of Handout 12, "Food Day Suggestions" for the planning group to refer to in setting up activities for the food day

Procedure

1. The group must decide that having a food day is worth doing. You might list pros and cons of putting on a food day, whether in a school or community group. Try to cover time, preparation, planning, materials, logistics, and payoff in terms of the goals of a food day.

2. The major goals of the day should be formulated and agreed upon.
   --The goal might be educational. You might try to provide people with information about diet, world hunger, food policy, farming, etc. You could take one topic or all of them depending on your resources.
   --The goal might be involvement. You might use the day to create a food bank, or meet with legislators, or share food recipes, etc.

3. Resources should be identified. This includes speakers, books, pamphlets, organizations, etc. You may have a goal that can't be reached with the resources available, so it is important to list and identify resources.

4. Set up a program and assign tasks to the students. Examples of programs are included in this activity. Please be sure to include program segments that include people in the action. People should not be sitting and listening all day.

5. Plan for publicity. This may include a brochure or posters or announcements over the P.A. system at the school.

6. Consider ways to evaluate the success of the program.

Remember that this is just a brief outline of the basic areas to cover in putting together a food day. You will need to plan carefully and consult persons who have experience at operating a successful one-day, full program.

ACTIVITY #17

Students document the buying, preparing, serving, and disposal of food in their homes. The group analyzes those patterns and examines the effect of changes.	INTERDEPENDENCE VALUES AWARENESS

Title FOOD TIME

Introduction

Consider how much time everyday is spent by people either growing, preparing, serving, buying, or disposing of food. And in some societies, especially pre-industrial, the time for such tasks probably is doubled or tripled from the time taken in contemporary life. Who is responsible for food-related tasks in your home? Who is responsible in your community? Who is responsible in your state or nation? In this activity participants gather data on questions related to food production, gathering, distribution, and consumption. They use that data to generate hypotheses about the role food plays in our lives in relation to the time these activities take.

Objectives

To identify the persons and the time involved in gathering, growing, preparing, serving, and disposing of food

To evaluate the use of time for food-related activities in terms of efficiency, roles, waste, and cost

Time One class period

Materials Copies of Handout 13, "Food Time"

Procedure

1. Hand out the chart to the students. Tell them to collect data on the chart for a few days. Have the students bring the completed chart to a joint class session.

2. Discuss the data from the charts with the group. Who is most often responsible for buying the food? How long does this take? Could the time be shortened? Who is most often responsible for storing the food? How much time does this take? Who is responsible for preparing the food? On the average (this can be computed) how much time is spent each day preparing food? How is food disposed of? Who takes charge? What is the total time, on the average, spent by members of your families in food-related activities?

3. Now have the group try to examine different patterns of food-related behavior. How do single persons get their food? Do they spend as much time in food-related activities as you do? As your family does? What about other cultures? Take another culture and collect data on food-related activities. Do they spend more time than you do? Than your family does? Do they spend more or less time in gathering, producing, preparing, storing, or disposing of food? What could account for these similarities and differences?

Further Suggestions

Plan to change the time it takes to prepare, obtain or store food. Then evaluate the change. Plan to change the persons involved in food-related activities. Do you like the results? Where do you stand on this statement: "I spend more time in food-related activities than it is worth?"

ACTIVITY #18

Students analyze the messages of two award-winning cartoons, then draw a cartoon to express their own views on food issues.

PERCEPTION
DISTRIBUTION
DECISION-MAKING
INTERDEPENDENCE
CRITICAL THINKING

Title CARTOONS THAT AREN'T FUNNY

Introduction

A good cartoon can communicate what is not possible with the written word. Learning to read such cartoons is an important skill. In this activity students are asked to interpret two cartoons about population growth and food production. After examining the cartoons provided on the handout, they are encouraged to draw their own cartoons to express their views on food and hunger issues.

Objectives

Students will interpret the message of two cartoons related to population and food.

Students will draw cartoons that depict their views of food issues and that reflect their understanding of the use of political cartoons.

Time One half class period for discussion of cartoons
Two or three days outside of class for preparation of cartoons by students

Materials Copies of the two cartoons for students, Handout 14, (and/or an overhead transparency)

Procedure

1. Show each cartoon to the class. Have the class work in pairs. Ask each pair of students to write down what they think each cartoon communicates. Point out that each cartoon has a similar message.

   NOTE: You might have to explain the cartoon literally at first. Ask students what they see ("I see a tic-tac-toe board with skulls", etc.) Then ask what the symbols represent. Students can then suggest what the message is.

2. Discuss what the students wrote in Step 1. Discuss similarities and differences in the two cartoons. Find out how many students agree with the cartoon messages. How many disagree?

3. Ask students to make their own cartoons. They can be on any food issue. Different topics can be brainstormed and listed on the board. Give them at least three or four days to draw their cartoons. Let them refer to other sources for ideas if they need to. One way to help students design cartoons is to have them bring in a cartoon they like or one from a newspaper or magazine. Choose a few good ones and make overhead transparencies. Show them to the class, pointing out different aspects of the cartooning technique.
   1. Use of symbols
   2. Use of analogies
   3. Use of humor
   4. Use of sarcasm
   5. Keep drawing simple and to the point
   6. Make the caption to the point

Encourage students to make a number of rough drafts. Allow them to trace parts of other cartoons but discourage them from completely copying other cartoons. Place the cartoons students brought to class in a folder for them to obtain ideas from.

4. Have a contest when everyone is through. Which cartoon do the students think is best? Set up more than one category for "best". Point out that the two cartoons they examined were winners in a contest. Have students summarize in some way what makes a good cartoon.

ACTIVITY #19

Students take a simple survey of their own eating patterns. Survey can also be utilized as a community study.	AWARENESS VALUES CRITICAL THINKING

Title PERSONAL FOOD SURVEY

Introduction

This simple survey is designed to increase student awareness of the many variables that interact to form our eating patterns and habits. In addition, the survey is used to test student perceptions about the eating habits of the people living in their immediate neighborhood. The survey will also supply data for use in other activities and for analysis and evaluation of the group's personal eating habits.

Objectives

To create a data bank of information about the students' personal eating habits

To predict the eating habits of the students' neighborhood and test those predictions by administering and evaluating the survey

To increase student awareness of the many factors that interact to form an individual's eating habits

Time Two class periods - one for instruction, one for evaluation

Materials Copies of Handout 15, "Personal Food Survey" for each student (If you do the neighborhood survey you will need more copies.)

Procedure

1. Personal Survey:
   A. Tell the group that you are handing out a short survey on personal eating habits which will be used as the basis for a discussion of eating patterns in this country. Have each individual answer the survey. This may be done anonymously.
   B. After students have completed the survey, discuss the questions at the end of the survey with the group.

C. Have the students consider one change in our society that would have an important and/or dramatic effect on their eating patterns. Would they be pleased with the change? If so, how could the change come about?

2. Neighborhood Survey:
   A. Have the students fill out the survey the way they think the majority of people in their neighborhood would fill it out. Discuss why the students make the predictions they do. These might be listed on the board.
   B. Have the students orally survey at least 20 people who live in their neighborhood. This can be done on the telephone.
   C. Analyze the results the students obtained.
      1. Were they correct in their predictions? What accounts for this? What accounts for wrong guesses?
      2. In what ways are all the people in the community similar in their food habits? Are there any significant differences?
      3. What did the students find out that they didn't expect? What are some possible explanations for this?
   D. What kinds of decisions would be effected by the information you have gathered? For example: When would be the best time to have a party? Would that interfere with dinner time meals? Would you need to have food at your party? Remember the data may not help you answer such a question. If it doesn't, what data would you need to collect?

Evaluation

Have students create their own Personal Food Survey that would demonstrate that they know of many factors that would determine eating habits. The more items the students come up with, the more aware they might be of the variety of factors that affect eating habits. Students might be asked to justify why they included the questions they did on their food survey.

Further Suggestions

Many companies take surveys to discover the consumer's eating habits or food preferences, or reactions to new products. See if the class can participate in one of these consumer surveys. Locate someone who has given these surveys to explain their purpose to the students. Obtain one of these surveys and have the class try to decide what decisions the people who are giving the survey want to make from the data collected.

ACTIVITY #20

Decide-A-Plan asks students to choose from among three alternative solutions to food crises: Triage, Lifeboat and food bank.	VALUES DECISION-MAKING CRITICAL THINKING CONFLICT DISTRIBUTION

Title DECIDE-A-PLAN*

(The student pages of this activity may be reproduced for classroom use only. No other part of this activity may be reproduced for any reason without written permission from the Center for Teaching International Relations.)

Introduction

The first part of the lesson is based on a fictional letter from a Peace Corps volunteer in Java to her younger brother in the United States. It serves to focus students' attention on the pressures of population in a country with limited resources, and on the degree of poverty which exists outside the U.S. By answering the same questions posed to Kim, the Javanese boy in the letter, students will notice the sharp contrast between their lives and that of the Javanese. In the second part of the lesson students will read short paragraphs outlining three possible approaches to treating the world food shortages. They will be asked to decide which of the three alternatives is most consistent with their ethical and emotional responses to Kim and the prospects of world survival.

Objectives

Given a reading and discussion about food shortage and population growth in Java and given three suggested global policies in dealing with distribution of food resources, students will write a paper about how international food shortages may be treated. Students will clearly state which of the three alternatives they prefer and give a rationale why they chose that one and rejected the other two.

The student will become familiar with three concepts: "Triage," "Live boat" and "food bank."

The student will develop individual articulation in the writing of a considered value position.

The student will increase his empathy and awareness of global food problems.

Time One class period

Materials Copies of Handouts 16 and 17, "Letter from a Peace Corps Volunteer" and "Decide-A-Plan -- Choice Sheet" one of each per student

Procedure

1. Pass out "Letter from a Peace Corps Volunteer."

2. Point out Indonesia and Java on the map so students can visualize their locations.

3. Introduce the letter to the class by saying it is a letter to her younger brother from a Peace Corps volunteer working in Java, part of Indonesia. Tell students as they read the letter to pay close attention to the description of living conditions in Java.

4. Ask students to describe Java's physical characteristics.

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*Adapted and printed with permission from an exercise written by Dr. Paul M. Armstrong, Social Studies Development Center, Indiana University.

5. Have students describe Kim's family and their life.

6. Ask students why Kim's family has such a difficult time obtaining enough food. You might then discuss the significance of population density. Does high density necessarily mean that a nation will have many poor, underfed people? Can students name other nations that have high population densities? Students may cite high density countries such as Japan and the Netherlands, which don't suffer serious food shortages. What distinguishing factors do students see between these two countries and Java? (Most important is the high level of industrial development of both Japan and the Netherlands which enables them to pay for imports of food and large quantities of fertilizer. Since Java has few alternative sources for acquiring money, the pressures from growing population serve to perpetuate and worsen the poverty.)

7. Ask students to consider Karen's statement that while Kim's father can afford little fertilizer to prepare his land for cultivation, people in this country use it to beautify their lawns. Do students see any causal links between the high level of fertilizer usage in America and the low level in Java? What connections might there be? (High demand and high ability to pay for fertilizer in the United States -- and other industrialized nations -- make fertilizer sufficiently expensive so that poorer nations can afford to buy it in only small quantities. Sharp increases in the price of crude oil since the October, 1973, Mideast war have also increased the cost of fertilizer because oil is an important element in its manufacture. Thus, poorer countries have been further forced to curtail fertilizer purchases.)

8. Now tell students they are going to consider some alternatives to how international food shortages might be treated. Pass out the Choice Sheet, asking students to read it carefully and decide which alternatives best meet the needs of the world.

9. Make written assignment asking students to state which of the three alternatives they prefer and give a clear reason why they rejected the other two choices.

10. This may be turned in at the end of the period or the following day.

ACTIVITY #21

Students prioritize solutions to food distribution problems based upon who has the power and authority to implement such solutions.

POWER
INTERDEPENDENCE
DECISION-MAKING
VALUES

Title FOOD POWER

Introduction

This activity is designed to force people to consider questions that are often ignored when citizens make value decisions about the best methods to resolve

world food distribution problems. The purpose is to have students suggest and discuss the power factors that must be considered in examining solutions to food distribution on a global scale. The purpose is not to have students arrive at a firm decision, based on facts, about the best solution to food distribution problems, but students are expected to consider what is possible in setting food policies, in light of the power factors.

Objectives

To identify at least five power sources that influence food policy

To state why a solution to the food problem is interdependent in nature

To recognize that there may be a difference between the desirable and the possible in establishing world food policy

To recognize that the food problem must be treated from a global rather than a national perspective

Time One class period

Materials Handout 18 entitled "Food Power" -- one per student

Procedure

1. Explain to the group that the goal of this lesson is to select the best solution to the world food distribution problem from among the choices given, based on what they now know. A definition of "best" ultimately might mean the most desirable solution that can in reality be accomplished. However, at this point emphasis should be placed only on the most desirable solution from each student's perspective.

2. Ask the group to rank order the five choices that they as individuals think are the best approaches to the food problem. You will probably have to explain the solutions to the students. The vocabulary may be difficult.

3. Summarize the data and analyze it using the following questions:

   A. Who would or does have the power to put this idea in effect?
   B. Who would or does have the power to effectively prevent the implementation of this proposal?
   C. Who would be given the authority to carry out the idea?
   D. Do those who have the authority to make the decisions necessarily have the power to implement them?

   Possible answers to A, B, and C are: national governments (the role is likely to be different for developing as opposed to developed dountries), farmers; organizations, international agencies such as the UN and its related agencies (FAO, World Bank, etc.), multinational corporations, the Common Market, OAS, etc. The discussion may conclude that there are more groups capable of preventing an action than there are those that can implement one, although the relative power of groups is also a factor. It will

also show that there are agencies which are primarily national in scope making the decisions for an international problem. Also, most of the solutions cannot be approved and carried out by the same body, i.e., item 7 would require approval of the major fishing nations, and in some cases the industry within the nation, but none of these could carry out the idea.

Item D can be answered yes primarily in those solutions that are national in scope. It will be almost always no for those that call for international cooperation and/or management.

4. Ask the group to again rank order the suggestions from 1 to 5 according to which they think are most likely to be achieved, given the discussion on relative power and authority factors involved.

5. Discuss the new ratings. Are there changes? If so, why? Are students more pessimistic or less pessimistic about solving food distribution problems? Some factors affecting their opinions might be:
   A. The relative ease with which a particular power group may be influenced.
   B. The number of power groups that might benefit from such a decision.
   C. The benefits that may accrue to the most significant power groups.
   D. The existing machinery available for implementing such a decision.

Further Suggestions

Students might summarize their discussion about which groups, persons or nations have the power and/or authority to implement specific policies into a few hypotheses for further research and investigation. Were their hunches right?

Identify persons in the community who have the power or authority to effect food policy and distribution. Have them speak to the class, or better yet, spend time with them and document your visit in the form of a tape, article, or bulletin board display. How about a letter to the editor of the local newspaper about people in power related to food? A list of possible people might include, City Council members, Governor, farmers, feed lot owner, Safeway executive....

ACTIVITY #22

Students rate statements as "good news" or "bad news" according to their values.

INTERDEPENDENCE
VALUES
PERCEPTION
CRITICAL THINKING
DECISION MAKING

Title GOOD NEWS - BAD NEWS

Introduction

Every day we hear all kinds of information about population and food. Newsweek and Time report on population and food. Newspapers and television have articles and special programs on the subject. Depending on what you read or hear at any one time, stories about population and food may seem like good news or

may seem like bad news. This activity allows data to be categorized as Good News or Bad News. Then, comparisons are made to determine relationships between the pieces of data.

Objectives

To decide whether selected bits of information are "good" or "bad"

To compare data to identify relationships

To recognize that data can be misleading when taken out of context

To recognize the need to look at multiple data sources when evaluating population/food issues

Time One class period

Materials Copies of Handout 19, "Good News/Bad News" Chart, one per student

Procedure

1. Ask students if they are generally pessimistic or optimistic about the chances of feeding the world and/or slowing rapid population growth.

2. Tell them you would like them to rate some statements you're about to read to them. Using the chart (Handout 19), ask them to decide whether the statement, in their own judgment, is "good news" or "bad news." Have them copy the number of the statement in the appropriate column.

3. Ask students to discuss the ratings. You might identify some statements and discover to what degree students agreed on the rating for the statement. Then discuss these questions:
   A. Which statements make other statements seem much better or much worse?
   B. Choose a statement and draw lines to other statements on the list which affect it or are, in any way related to it. Does the data confirm your pessimism or optimism as you expressed it in #1 above? Why?

4. Ask students if they have changed their minds about the ratings. Encourage them to collect more information that will help them evaluate the prospects for positive solutions to population/food dilemmas. Have students give examples of how a statement that is viewed as "good news" could be viewed as "bad news" when looked at in connection with other information.

Evaluation

Ask students to write an opinion paper on the following statements:
1. "Although world population is growing at an explosive rate (doubling every 35 years), this growth is not a large problem at the present time."
2. "With modern technological know-how, the world will succeed in feeding its people in the future."

Further Suggestions

1. Make a bulletin board with two sections--Good News and Bad News. Ask students to bring statements and place them on the board. These could be out of articles, or could be pictures, etc. Let the group discuss the new information as it becomes available. This points out the continual process of data collection and attitude evaluation.

2. Put together a set of "Good News" statements and a set of "Bad News" statements about the population/food question. Which list is longer?

3. Ask students to write a paper describing their views of the population/food situation as gleaned from the "Good News" - "Bad News" statements included in this activity.

4. Ask students to indicate the types of information they would require in order to adequately view the population/food question. The goal here is an appreciation of the multi-faceted nature of population/food issues and the need to examine a wide variety of sources for forming opinions.

5. Check out the validity of the data. Whether the data is true or false will have an effect on the usefulness of information.

STATEMENTS

1. Some countries are paying their farmers not to produce food.

2. Fifty nations are three times as crowded as the United States.

3. Abortion is now legal in the U.S.

4. The population of the world is growing faster today than at any time in man's history.

5. Much potential arable land must be irrigated.

6. Tropical land receives greater solar radiation and multiple crops could be raised each year on this land.

7. Life expectancy has increased in most parts of the world.

8. Infant death rates are dropping in almost every country of the world.

9. The universities of Latin America are graduating enough dentists each year to maintain the present ratio of dentist to population.

10. A U.N. report on world housing estimated that over 900 million persons in Africa, Asia, and Latin America are without proper housing.

11. The world could catch $2\frac{1}{2}$ times more fish from the sea than we now catch.

12. There is now a technique for sterilizing women that is much safer and less time-consuming than previously-used methods.

13. There are two billion acres of potentially arable land, most of it in the tropical regions of the world.

14. Most nations of the world now have family planning programs.

15. In the U.S. 40% of women interviewed in 1960 said they wanted 4 or more children.

16. Many of the new high-yield varieties of grains have lower protein content than pre-World War II varieties.

17. Research is now concentrating on developing and testing grain varieties with higher protein content as well as possible additives to enrich the present varieties.

18. One-third of the arable land in the world is now used.

19. It is possible, though too expensive at present, to cultivate algae in water or even on petroleum or the sewage from our cities. The algae, after processing, could serve as a food source.

20. The soil in the tropics is very poor and erodes easily.

21. There are more hungry mouths in the world today than ever before in history.

22. The use of improved seed lines, water control, more fertilizer, and disease and pest controls have together brought about sharp increases in grain production around the world.

23. America has 6% of the world's people and consumes at least 40% of the world's resources.

24. A map of the cultivated land on our planet shows the Eastern and Central U.S., Europe, the Russian plains, India, and China to be the major cropland areas; the most adequate soils, by far, are those of the American Midwest.

25. Most countries, including the U.S., are running out of land that can be converted into cropland.

26. Land not under cultivation will require immense inputs of money for clearing, irrigation, and fertilization to make it productive.

27. Much productive land is diverted to crops such as tobacco and coffee.

28. The food that is annually lost in India to pests, poor storage, and bad transportation could feed fifty million persons.

29. Less than five percent of the soils of the tropics are potentially fertile cropland.

30. Many Americans have been reduced to buying pet food as a source of protein.

31. The fastest growing national organization in the U.S. is Weight Watchers.

32. About half of the children in the underdeveloped countries perish in infancy from hunger or malnutrition.

33. One farmer in the U.S. now feeds over 30 people.

34. The part of the population with average daily energy (caloric) intake below needed minimums is 90% for Asia, 40% for Africa, and 30% for Latin America.

35. Almost three billion dollars are needed annually in the poorer nations to develop new crop lands to keep up with the population growth.

36. It takes 400 years to build up an inch of topsoil.

37. It takes $50 to bring an acre of new land into high productivity.

38. World fertilizer use has tripled in 25 years.

39. Per capita consumption of beef in the U.S. has more than doubled between 1940 and 1972.

40. U.S. food aid has dropped from 18 million tons in 1965 to 9 million tons in 1972 to less than 4 million tons last year.

41. If Americans ate 10% less meat, it would release enough grain to feed 60 million people.

42. World grain consumption is growing by 1.4 million tons a year faster than world grain production.

43. By the most conservative estimates, at least 460 million people are threatened with starvation today. Ten million will probably die this year, most of them under five.

44. Purdue scientists have calculated that by eating only high-lysine corn plus a vitamin-mineral supplement, an adult could eat adequately on 10¢ a day.

45. In 1973 the average American spent 16% of total income on food. The average Indian spent 80%.

46. The major nutritional disorders in the U.S. are those of excess--obesity, diabetes, high blood pressure, cardiac disease.

47. One-fifth of the world's cattle are in India.

ACTIVITY #23

Students use "man in the street" interview technique to discover general adult knowledge of diseases due to inadequate and poor quality food.	AWARENESS NUTRITION PERCEPTION

Title GOBBLE DE GOOK (IT'S GREEK TO ME)*

Introduction

Through experience you will find that most people are unaware of some diseases that are killing many people, especially children, today. Many of these diseases are the result of poor and inadequate diets. In this activity, students use a survey approach to explore community knowledge of diet-deficiency diseases. Then the students attempt to find a way to communicate accurately to the public what these diseases are and what they do to people.

Objectives

To encourage students to sample the general public's knowledge about hunger-related diseases

To provide students with the opportunity to inform the public and themselves about the nature and cure of these diseases.

Time One hour outside of class, one class period for planning and discussion

Materials Copies of Handout 20, Deficiency Diseases Chart, to be given out after the survey

Procedure

1. Tell students that you would like them to interview three to five people in order to get their definitions of some words. Tell the group that the words, except for "ozone" are the names of deficiency diseases.

2. Have each interviewer follow this procedure:
   A. "Hello, my name is _____. My class is taking a survey and we would like to have you tell us what five words mean to you. I will write down your response and your answers will be kept anonymous.
   B. "What is Beri-Beri? What is Kwashior Kor? What is ozone? What is Marasmus? What is Rickets?
   C. "Thank you for your time. For tallying purposes I need to know your age bracket."

      10-14_____ 21-30_____ 51-70_____

      15-20_____ 31-50_____ 71- _____
   D. Then record the sex of the person. M_____ F_____
      You should repeat this procedure for three to five interviews.

*From World Food Supply, A Global Development Studies Case Study, revised edition, 1975, by J. Carlisle Spivey, MIND, 230 Park Ave., New York, New York 10017.

3. Compile and discuss the results with the rest of the group. Which names did people know? Which word did the fewest people know?

4. Now hand out the chart and go over it with the students.

5. After going over the chart, tell the group it is now their obligation to think of a way to communicate the accurate information to the people who took the survey. This process can be as involved as the group chooses or the group might just reproduce the charts and hand them out to the people who took the survey. The point is that the group must decide how to educate the public about these diseases. Some very useful projects and activities could emerge from this task.

Evaluation

Have the students check back with the persons they interviewed to see if they now know the meaning of the words.

ACTIVITY #24

Students discuss and analyze technological solutions to food problems.

AWARENESS
INTERDEPENDENCE
VALUES
DISTRIBUTION
CRITICAL THINKING
DECISION-MAKING

Title TECHNOLOGICAL ANSWERS

Introduction

You may have heard the statement that "technology will solve our problems." The issue raised here is not whether the statement is true or false. Both sides have strong support. Rather, the issue centers around people's views of the role of technology in food production. There is some evidence that technically the world already produces enough protein and calories for the world's population. H. A. B. Parpia (Ceres, Sept. - Oct., 1969) states that, "The world produces more than three times the total protein and calorie requirements of its population...." The problem, then, is not production but what is available for consumption. Hence, we need to examine techniques for food distribution. Disease, insects and rats, inefficient harvesting methods, poor distribution, and poor storage and marketing systems contribute to food shortages. In addition cultural habits, taboos, lack of knowledge and government subsidies keep the market price up and reduce the availability of food. In this activity students examine technological solutions that may in fact create food scarcity.

Objectives

To familiarize students with technical solutions to food distribution problems

To encourage students to evaluate technical solutions to food distribution problems

Time One class period

Materials Copies of Handout 21, "Technological Answers", one per student

Procedure

1. Explain to students the basic issue regarding technological solutions to food issues: One group feels implementing technical solutions will solve problems. Others feel technical solutions only breed new, more complex problems, while failing to solve or control the original problems.

2. Give the students the list of technical solutions to food distribution problems. The list can be utilized in the following ways:

   A. Ask students to check solutions they think are possible in the next five years. What would make them possible?

   B. Ask students to generate a list of other technical solutions to food distribution problems.

   C. Ask students to list all of the social, political, economic, or cultural factors they can think of that could hinder the implementation of technical solutions. Discuss how these "road blocks" could be overcome.

   D. Discuss with the students the solution listed that interests them the most. Is it interesting because it is possible? Because it is novel? Because it is technical?

   E. Choose one solution and research the possibilities for its implementation. Report the findings to the group.

   F. Discuss this statement: "Technology offers humans many ways to provide enough food for everybody, but it can't provide the will."

ACTIVITY #25

Our responses to words about food can make us hungry. This activity demonstrates the power of words and hunger.

PERCEPTION
AWARENESS
CONFLICT
POWER

Title WORDS AND HUNGER

Introduction

Remember the last time you were in a conversation with someone just before lunchtime, and the topic of conversation just happened to be food? Remember how you felt when certain foods were mentioned, particularly those that you're so very fond of? Such situations make all of us feel hungry. Why? We can't "really" see, smell or taste the foods, but the mere words conjure up images of those foods that produce powerful feelings within us. Our experiences with the foods (object) give meaning to the words or labels (symbols). Even though we know intellectually that the symbols are not the objects, our word-

experience-object association is so strong that we react at the subconscious level when hearing the words.

Students are often unaware of just how influential and powerful symbols such as words can be. Yet, they react to them mentally, physically and emotionally every day. The following experiment provides students with an opportunity to probe the power of words and offers a means for examining the phenomenon of word-experience association.

Objectives

To recognize that word meaning lies within the perceiver (person) and is dependent upon the person's experience with the word and the object it represents

To feel the emotional and physiological responses prompted by words that are associated with food

To recognize the cultural dimension of word meaning, or that culture is a determinant of word-experience-object association

To experience the emotional and physiological phenomenon of hunger, and, within this context, to analyze the degree to which hunger inhibits and dominates ones ability to function intellectually and physically

Time Minimum of $1\frac{1}{2}$ hours spread over three class periods

Materials Flash cards and Handout 22, observer's sheet, one per student

Procedure

(The agenda as intended in this exercise would be as follows:
1st day-Explain the purpose of the experiment; give example of word power; ask for volunteer group (Steps 1 & 2)
2nd day-(or whenever approval is obtained) Clearance and selection of volunteer group; explanation of fasting procedure (24 hour fasting period from 2nd to 3rd day)
3rd day-Proceed with remainder of exercise (Steps 3 & 4 plus student evaluation).)

Step 1 - Two days before the actual de-briefing period takes place (Step 4), explain to the class that they will be participating in an experiment designed to test the degree to which words can influence our emotions.[1]

[1]NOTE: By this time it should be obvious that implicitly the heart of the experiment involves accenting an experiential base (hunger drive) to give powerful association to the words that represented food from previous experiences which satisfied that drive. The choice of a 24-hour fasting period is, of course, entirely arbitrary and does not preclude the use of the exercise in alternate ways. One could, for example, simply do the exercise with the entire class participating just before lunch break. Some students might want to extend the fast period to test how much more powerful the words become to them. Moreover, it would be just as advantageous to use another "basic drive" as a catalyst for the experiment. For example, what would happen if you put a group of vol-

To illustrate what you mean, and to provide a sample or "appetizer," give the following example of word power: FOR THE NEXT FEW MOMENTS I WOULD LIKE YOU TO CLOSE YOUR EYES AND TRY TO RELAX. CLEAR YOUR MIND OF ALL DISTRACTIONS. TRY TO CONCENTRATE AS MUCH AS YOU CAN ON MY VOICE. I WANT YOU TO IMAGINE THAT YOU ARE SUCKING ON A LEMON--IMAGINE HOW IT WOULD TASTE. Ask how many students felt like "puckering up." How many of you felt saliva form in your mouth? What does this say about the "power of suggestion" in words like "Imagine that you are sucking on a lemon"? (Certain words and phrases have very strong experiential bases for us; they evoke strong feelings and actual physical reactions in us.)

Step 2 - This step is crucial and must be structured very carefully. Ask for a group of three or four students to volunteer to participate in an experiment to demonstrate the power of words. Explain that this group is to abstain from eating all foods and beverages, except water and perhaps a vitamin supplement, for a period of 24 hours. NOTE: This selection process must be done with the utmost care! It would be advisable to obtain parental and/or the family physician's consent before approving the volunteer group. Ask prospective volunteers to obtain approval and report back to class the following day, preferrably with written permissions.

Step 3 - When clearance is obtained, and the volunteer group has been selected announce that the volunteers are to begin abstaining from all foods (except as stated above) for the following 24 hours, or until the class meets again the next day.

<u>De-briefing</u>

After 24 hour fast: ask volunteer group to be seated in front of the class. Ask them how they feel physically, emotionally and mentally at this point. Try to elicit as much talk as you can regarding their feelings; e.g., lightheadedness, dizziness, depression, irritability, hunger pangs, etc. (10 minutes maximum!)

A. Explain to all students that you are now going to hold up a series of flash cards with words on them. As you hold each of the cards up, the volunteer group should study the card for about four or five seconds. The rest of the class is to jot down any noticeable behavior on the form provided as the cards are held up. (Handout 22 - "Words and Hunger, Observer's Sheet")

Guide for flash cards:

1. book
2. chair
3. roast beef
4. pizza
5. picture frame
6. chocolate cake
7. planton
8. lamp
9. hamburger
10. meat-potatoes-gravy

---

unteers in a room that was excessively hot for a period of time, then constructed a word list or set of flash cards that included words such as "ice cube" or "air conditioner"? Use the exercise with the variation that most fits your needs.

11. television
12. roast turkey
13. corn-on-the-cob
14. popcorn
15. waterchestnuts
16. magazine
17. doorway
18. hot soup
19. casserole
20. ice cream sundae
21. steak and eggs
22. smothered burrito
23. barbecued spare ribs
24. bottle
25. electric lights
26. spaghetti with meat sauce

B. How did these words make you feel? (Some words--very hungry!)

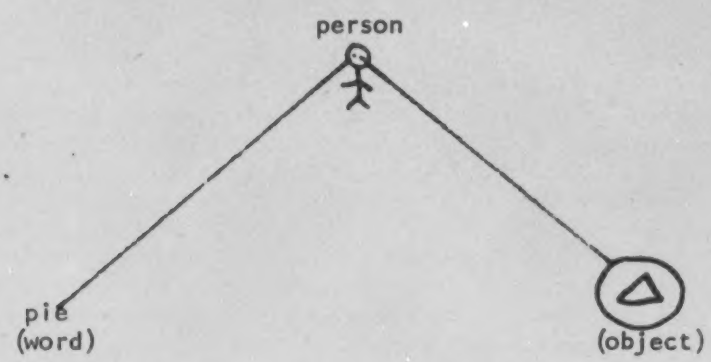
C. Which words made you feel most hungry? Why? (Individual responses here will depend upon personal experiences with the foods the words represent, as meaning is <u>within</u> the <u>person</u> and not in the object it represents.)

NOTE: At this point it is suggested that you provide some sort of snack or food for the volunteer group while you proceed with the rest of the de-briefing.

D. (Audience) What reactions on the part of the volunteers did you notice as you observed them responding to the flash cards? (A good section to let the comments fly! Observers may have picked up behaviors that volunteers were unaware of.)

E. How did you (volunteer group) feel about words like planton and waterchestnuts? (Depending on the composition of the group, there was probably very little reaction to these words. Explain that planton is a delightful dish consisting of fried bananas and eaten by many peoples of western Africa; waterchestnuts are a delicacy to the Chinese.) Students of China and Africa would probably have similar reactions, i.e., very little response, to words like "smothered burrito." (If students haven't already done so, re-emphasize the notion that words have meaning only in the context of a person's experiences with them. Another key point here is that culture determines our experiences with words as symbols to a great extent.)

F. Thinking about this experiment, what do you think is meant by the following diagram? (Reconstruct on the chalkboard)



The diagram suggests the key semantic concept for this activity: a word is a symbol; it has no meaning without a person. Conversely, the object

has no meaning without the person or symbol to represent it, although the symbol does not necessarily have to be a word as we would define "word." People mentally enmesh an object and its name, to the point in many cases of considering the thing and the word to be one and the same. Hence, the word alone evokes strong feelings based upon the person's experiences. Can you think of other words that produce strong feelings in people? (Examples: "communism," certain obscenities, "liar," "child-molester," etc.)

G. We could have chosen other symbols besides words for the exercise. For example, we could have used pictures of food. Would these images have produced stronger feelings? (Being visual images, probably yes.) What if we added the odor of food, and the sound of it cooking as well--how would these additional perceptions have affected your emotions? (With each additional sense stimulated, the feelings would increase proportionally.)

H. One of the most influential means of getting people to consume goods is via the media, especially television. Explain how T.V. uses symbols--words, pictures, sounds--to influence us to buy certain products. Has this experiment in any way deepened your understanding of how influential a medium such as television is on our desires to consume goods, especially food? (Hopefully, the answer will be in the affirmative, at least for the volunteer group.)

I. Probing further:

1. What do you think it would be like to feel hunger for prolonged periods of time? How would chronic hunger influence the way you live? (Concentration of time and money on food; inability to think of little else but food). It would be important to suggest here the dilemma of those people in the world who are hungry. Also suggest to students the notion of the interdependence of an adequate diet with education, lifestyle, etc. How many in the volunteer group found that their fasting had an effect on their ability to think and do their school work? What about comparisons, then, with peoples who are chronically hungry? (Important here is the expectation of many who are well-fed that education will come first, so that underfed peoples can earn money second, in order to buy sufficient food third.)

2. If you were chronically hungry, what effects do you think radio, magazine and television advertising might have on you? (Food commercials and advertising would greatly stimulate the desire for food; people in underfed regions of the planet--including the U.S., of course!--seeing such advertisements via cross-cultural media would probably react much the same way.)

3. Look at some of the words on the flash cards that aren't related to food. Were your (volunteer group) feelings of hunger so strong that you began to read "food" into even those words? (Possibly!)

ACTIVITY #26

Students role play AID administrators who must decide how best to distribute limited funds for food aid in West Africa.

DISTRIBUTION
VALUES
PERCEPTION
DECISION-MAKING

Title FOOD AID - WHEN AND HOW MUCH?

Introduction

The actual mechanics of giving aid to other countries is complex and often quite frustrating. There are always more requests than money, and it is difficult to decide where are the most beneficial uses of financial aid. For an individual country these decisions are affected by more factors than utility and success. Political factors also weigh heavily in the decision-making process. This is also the case for international aid organizations such as AID, although they will not admit such practices. In this activity students role play some of the elements of the decision-making process with which planners in an organization like AID must deal. Although the situations are simplified, they are sufficient to point out to the students the complexities that dominate the attempts to make food aid a reality.

Objectives

To demonstrate the complexities involved in making decisions about financial aid for food-related projects

To match students' value positions on food aid with role-play choices about aid to food programs

Time One or two class periods

Materials Copies of Handout 23, "Role Description" and Handout 24, "Projects Sheet", one of each per student; plus maps, graphs, charts, and any other accessible data

Procedure

1. Tell students that today they will have a new job with an international organization. In this job they will make decisions that will allow them to test their own values related to food aid. Hand out the role descriptions and have the students form pairs.

2. Hand out the project sheets. Give the group 20 or 30 minutes to make their decisions. Mention that all the data is hypothetical. You should provide maps, graphs and other data sources for use by the groups in making decisions. You might give the group a week to decide if you feel they are highly motivated.

3. The next day or session discuss the results. Was there any consensus by the groups? Did any of the projects seem too unrealistic? In what ways was it difficult to make a decision? In what ways was it easy to make a decision? What kinds of information would you need to really make a decision? Could this data be obtained? Would you be in favor of the U.S.

giving more money to an organization such as AID? Which option seems to be the most unrealistic?

4. Brainstorm other projects that might help countries in West Africa in food production. How could the group discover the feasibility of such projects? Send to AID and get information on projects funded. Compare these to your lists. Discuss the pros and cons of multilateral vs. bilateral food aid programs. This area needs to be researched. Contact U.S. Government, United Nations, and the World Bank for a start. Develop a debate around the topic.

Evaluation

Ask students to make a list of the kinds of data and information they need to make a responsible decision in such a situation.

Have a general discussion on the question, "When does a person have enough information to make a responsible decision?"

ACTIVITY #27

Students decide the effects of a hypothetical government decision to replace traditional forms of food with a pill.

AWARENESS
VALUES
POWER
CRITICAL THINKING
DECISION-MAKING

Title FOOD PILL

Introduction

All of us spend time in food-related activities, even if we are only involved by eating it. Others gather, package, sell, prepare, and dispose of the food. What would happen if all of these processes associated with food were eliminated? What would be the effect on us physiologically, socially, politically, economically, and psychologically? In this activity students use their knowledge and imagination to hypothesize about the consequences to humans and their behavior if everyone obtained their food through consumption of a small pill taken three times a day. By exploring such a hypothetical case, students can recognize the vast influence eating, food gathering, production, and preparation have on our physical and social well-being.

Objectives

To provide students the opportunity to consider and document the implications of a basic change in eating habits

To enlarge the students' understanding of the effects of food-related activities on our social and physical existence by documenting these relationships

Time One class period

Materials Copies of Handout 25, "The Pill"

Procedure

1. Distribute the reading to students. Ask them to read the handout. Tell the group to form pairs and write down all the implications of such a basic change in eating habits that can be determined. Mention that there are hundreds of potential effects. Give the group 15 or 20 minutes to compile a list. If they require help, you might list some of the categories that could be considered. These include: social interaction, laws, jobs, physical effects and appearance, etc.

2. After the lists are completed, have students share their data with each other. Ask these questions:
   A. Which effects are most likely to occur?
   B. Which effects are least likely to occur?
   C. Which outcomes would you like to see?
   D. Which outcomes would you not like to see occur?
   E. Would we as a people be better off if this situation did happen?

3. Have students give examples of the ways eating habits control or influence our lives. After having looked at the hypothetical in this activity, the group should be able to document many relationships and connections.

Evaluation Suggestions

Have the group write short stories based on the implications of this activity. These stories could then be read to the class.

Students might draw what people, towns, or homes would look like if a pill became our basic food source.

ACTIVITY #28

Students rank order deadlines for humankind according to their own value positions.

AWARENESS
PERCEPTION
INTERDEPENDENCE
DECISION-MAKING
VALUES

Title DEADLINES

Introduction

People in the world today face many pressing problems. Our perceptions of the severity of these problems today will no doubt have tremendous effects on the world of tomorrow. In this exercise students decide which situations have the most immediate deadlines by rank ordering these situations. These ratings reflect perceptions about the causes/nature of these global problems. Setting the stage for a discussion of students' perceptions of population changes as they are occurring in a global context.

Objective

To have students evaluate the severity of food shortages and distribution as compared with other global situations

Time One class period

Materials Make an overhead transparency of "Deadlines."

Procedure

1. Place the overhead transparency on the screen. Tell the students that you would like to discuss the group's perceptions of deadlines--deadlines related to global situations. Ask the group to individually rank order the six areas from 1 to 6 according to the immediacy for solving or dealing with the situation. In other words which situation listed has the most immediate deadline? That situation would be ranked #1. Ask this question of yourself until all six situations are ranked.

2. Tally the group's responses using a color (red) to signify the number of first place rankings a situation received. Use another color to signify second place rankings. You need only do the first three places as that will provide more than enough data for discussion.

3. Discuss the ratings. Encourage students to express their thinking about their choices. What explains the variety? How could these situations be ranked so differently? How could you explain the various responses? Would you expect all people to respond to the list in a similar way? Explain. Summarize as many of the group's perceptions about deadlines as possible.

4. How did the group rank lack of food? Ask the group how population size is related to lack of food. Why did the group rate rapid population growth as they did? Supply the group with some facts about rapid population growth, or do some other activities that provide factual information about population growth. Did this information change anybody's ratings? Discuss.

DEADLINES

Find out more about each of the following world-wide concerns and then list them in the order you think they must be dealt with. In other words, which of the concerns has the most immediate deadline?

The stripping away of the ozone layer of the atmosphere by the use of aerosol cans

The destruction of whales

The control of nuclear arms

The very rapid growth of world population

The lack of food to feed the people of the world

The poor conditions in which many of the people in the world must live

The pollution of streams and rivers

ACTIVITY #29

Students document food waste and attempt some behavior changes related to the food they waste.	VALUES NUTRITION DISTRIBUTION

Title FOOD WASTE

Introduction

Some middle-income families waste nearly 25 percent of the food they purchase according to data collected in sample studies in Tucson, Arizona, and Springfield, Oregon. If the towns are typical of American eating patterns, food waste could be viewed as a serious problem in the United States. This activity is centered on the question, Why do we waste food? The short article is used to raise the issue of food waste with the students. The students then document examples of food waste, suggest (and hopefully try) remedies, and consider the values reflected in a society that wastes so much food.

Objectives

To examine and evaluate eating habits as they relate to food waste

To document food wasting practices and to list remedies to such practices

Time Two class periods

Materials Copies of Handouts 26 and 27, "Studies Reveal Food Waste" and "Documenting Food Waste," one of each per student

Procedure

1. Ask the group who wastes more food in America: the rich, the middle class, or the poor? Discuss the responses. Then hand the article to the group to read.

2. Discuss the article. Does the article indicate that as Americans we waste more food than previously considered? Is it all right to waste food? Are you in the middle class referred to in the article?

3. Hand out the chart on documenting food waste. Ask the students to record examples of food waste over the next few days.

4. Have students share their lists with the group. Then break the group into smaller groups of 3 or 4 people. Have these people propose solutions or remedies to these problems. Have the group classify these remedies as a remedy that is personal, small-group, financial, or legislative. Then encourage students to pick one area of waste to act on within the next week or two. In two weeks hold another class session to document and share the results of any action the group members may have taken.

Evaluation

An interesting evaluation approach would be the following: Have students prove

that they and/or their families are wasting less food than 1 or 2 weeks ago.

Further Suggestions

Have students investigate the relationship of food waste to poor nutrition, or cancer, or other unhealthy occurances such as the existence of mice. Many news articles and current research indicate the Americans waste or do not use themselves parts of food products such as roughage, that are very healthy.

Suggest that students find ways to change food preparation habits that would eliminate waste. How can we get ourselves to eat more roughage and like it?

ACTIVITY #30

Students determine whether or not statements about food are factual or statements of opinion. Students then examine the similarities and differences between the two types of statements as related to food.	POWER AWARENESS CRITICAL THINKING PERCEPTION

Title FOOD CRISES: OPINION OR FACT

Introduction

When discussing any public issue it is important to separate facts from opinions. To consider the statement "people would have enough food if they would work" as a fact instead of an opinion would be both unfair and incorrect. There may be facts to support such an opinion, but that statement itself is not a factual statement. The purpose of this activity is to allow students to distinguish between factual statements and opinions related to food.

Objectives

Students will distinguish factual statements from opinion statements

Students will brainstorm advantages of distinguishing between fact and opinion

Time One class period

Materials Copies of Handout 28, "Food Crisis--Fact or Opinion?"

Procedure

1. Ask everyone to write one statement of fact and one statement of opinion on a sheet of paper. Ask that these statements relate to food. Keep these papers until the end of the activity.

2. Hand out the worksheet. Tell the students that the list of statements can be broken down into two categories. One category is factual statements about food. The other category is opinion statements. Ask the students to write "fact" next to the factual statements on the list and "opinion" next to the opinion statements on the list.

3. After the students have completed the worksheet, go over the answers. Students may disagree about the answers, because of different definitions of fact and opinion. For this exercise the difference to be focused on is the evaluative or judgmental quality of most opinions vs. the descriptive documentary quality of most factual statements. Therefore, even if students do not know whether a factual statement is actually true or not, it can be categorized as a factual statement. This point can also be used to illustrate that many statements can be phrased as facts although the information may be either true or false. Emphasize the need to make statements that can be verified.

4. During the discussion ask a student to write down the generalizations the class makes about the qualities of factual statements and the qualities of opinion statements. After the list is completed you may want to add some of the statements below. Then ask students to look at the two statements they wrote at the beginning of class. Are the statements they considered "facts," really facts, or opinions?

Evaluation

1. Discuss the advantages of knowing the difference between factual and opinion statements about a topic of public interest such as food. Have the group respond in writing to this opinion statement: "An opinion is not to be accepted or followed unless it is supported by facts." Remember there is no right answer to this question. The purpose is to get students to discuss the role of facts and opinions in discussing issues. Opinions about fact and opinion statements will differ.

2. Over a one week period ask the students to collect 10 factual and 10 opinion statements from the materials and activities from the media. This would be one way to document student ability to distinguish fact from opinion.

Further Suggestions

1. Have students underline textbook selections, magazine articles, or newspaper articles in the following manner.
   Underline in red the factual statements.
   Underline in green the opinion statements.
   Take one or two opinion statements. List them on a sheet of paper. Write down the factual statements that support the opinion.

2. Construct an opinion statement about food. Find facts to support the statement and then find facts that contradict the statement.

SOME CHARACTERISTICS OF FACTUAL STATEMENTS AND OPINION STATEMENTS

Remember that these statements are debatable. They are not exclusive. Some apply to both categories and may be different only in degree.

Factual Statements

Facts usually aren't generalizations
A fact can be proved to have happened.

A fact is usually something that can be measured.
A fact is something that exists in real life.
A description of an event is a fact, if judgements are absent.
Descriptions of facts are affected by perceptions and frame of reference.
Facts are objective in nature, removed to a degree from the observer.
Facts are concrete, verifiable pieces of data.
Facts are not definitions. Facts are statements, data, about experiences that can be verified, actually or potentially.

Opinions

Most opinions are generalizations.
An opinion is a way of thinking about a fact.
An opinion reflects the way a person feels about an event or fact.
What a person looks at or listens to may be a fact. How that person feels about what he sees, or hears, is an opinion.

FOOD CRISIS -- FACT OR OPINION?*

opinion 1. There is a food crisis in the world today.

factual 2. As population size is increasing so is food production.

factual 3. The U.S. government paid farmers over $2 billion to keep 19.5 million acres out of production in 1973.

factual 4. In many developing countries, industrial development, tourism, and military needs receive a much higher priority in terms of money spent than agricultural development.

factual 5. There are 70 million more mouths to feed this year than last.

opinion 6. The more technology a country uses the better the quality of life.

opinion 7. Industry and the national governments have the responsibility for solving food shortages.

factual 8. Between late 1972 and the end of 1973, the world price of wheat tripled, and soybean prices doubled in a twenty-four month period.

factual 9. The U.N. estimates that in Asia and Africa, 25 to 30 percent of the population suffers from food deficiencies.

opinion 10. Technology and oceans will feed the world.

*Factual statements taken from Prepare, December 1974, National Impact, 110 Maryland Ave., N.E., Washington, D.C. 20002.

ACTIVITY #31

Lively discussion starter which brings out a variety of perceptions on food and hunger issues.	PERCEPTION DECISION-MAKING VALUES

Title HO-HUM, INTERESTING FACT, THAT'S A PROBLEM!*

Introduction

This activity points toward an important dimension of perception--the same data is perceived differently by different people. This principle is so simple that many people tend to forget it. When some people perceive something as a problem, others seem dumbfounded about why they see it that way. An essential part of the perception process is selectively perceiving so as to construct "reality" as you see it. Using a forced-choice model, this activity brings out differing perceptions of food issues.

Students are presented with 18 statements related to food and hunger. As they read them, they are to react in one of three ways: HO-HUM, INTERESTING FACT, or THAT'S A PROBLEM.

Objective

Students will discuss why the statements elicit a variety of responses.

Time 45 minutes

Materials Copies of Handout 29, statements, and a reproduction of the following chart on a chalkboard or transparency:

	"Ho-Hum"	"Interesting Fact"	"That's a Problem"
Statement No. 1			
Statement No. 2			
Statement No. 3			
Statement No. 4			
Statement No. 5			
Statement No. 6			
Statement No. 7			
Statement No. 8			
Statement No. 9			
Statement No. 10			
Statement No. 11			
Statement No. 12			
Statement No. 13			
Statement No. 14			
Statement No. 15			
Statement No. 16			
Statement No. 17			
Statement No. 18			

*Format for this activity was suggested by John Haas, School of Education, University of Colorado.

Procedure

1. As students examine each statement ask them to react by raising their hands in one of three ways: "Ho-Hum" - if the statement doesn't seem of much interest to them, "Interesting Fact" - if it's an interesting statement, "That's A Problem" - if they think the statement reflects a problem.

2. Compile a class response on the chalkboard or transparency.

3. Go back through each statement and ask for reasons why there were differing responses to the statements. What accounts for these differences and similarities?

Further Suggestions

Try making slides of events, signs, foods or quotes related to food. This adds another dimension to the evaluation process as visual stimuli is introduced.

ACTIVITY #32

Students write short stories which reflect attitudes toward food. The stories are evaluated after a study of food issues.	PERCEPTION AWARENESS

Title BREAD AND WATER STORIES

Introduction

Food affects all of us in different ways at different times. When we are hungry the mention of certain foods makes us even hungrier. Yet just after eating a full meal even our favorite cheese cake dessert can look unappetizing. Food brings images to our minds that reflect our backgrounds, opinions, and perspectives. In this activity students' perceptions are tested by having them create stories immediately following two different situations. The stories and the discussion about them can be instrumental in demonstrating to students the role our environment plays in our perspectives and judgments.

Objectives

To allow students to write and compare the content of two stories using a similar set of words.

To allow students time to analyze their stories based on prior experiences and personal points of view.

To have students document examples of how our experience and environment affect our perspectives and perceptions.

Time Two class periods (50 minutes each)

Materials Copy the word list at the end of this activity on the chalkboard, or make a transparency of it.

Procedure

1. As the students enter the room point out the word list on the chalkboard. Ask students to write a short story using the words on the list. The story should be only one to two pages in length.

2. Collect the stories after each person has put his name on the story.

3. For the rest of the session discuss starvation and hunger in the world using a film, speaker, or other activity included in this series.

4. At the beginning of the next session, or after a few days of studying hunger and world starvation issues, give the word list to the students and have them write another story using the words.

5. Then hand the first story back to the students and have them discuss the two stories they wrote. The following questions could be used to guide discussion:
   A. In what ways do your stories differ?
   B. Which story was easier to write?
   C. What could help explain the differences in your two stories?
   D. Did our discussions about hunger affect your stories?
   E. If we knew more about the world food situation do you think our point of view would change?
   F. In order for changes to occur in our behavior we need more than new knowledge. What other things need to happen?
   G. Which story do you like best? Why?

6. Have the class list all of the factors that can or did affect the kind of stories the class wrote.

Evaluation

The activity won't work for many. Their stories will stay the same for the most part. Many students might only see the stories as a chance to be funny. This activity can be considered successful even if only a few students see the relationship of experience to perception and point of view.

Further Suggestions

1. Combine the stories with a Hunger Day activity. How do students' perceptions change when they themselves are hungry. Remember, the time of day might also affect what is written.

WORD LIST

wheat	eat	food	slim
corn	fat	dinner	diet
bread	full	meal	water

ACTIVITY #33

This activity consists of 25 action-oriented food tasks.

AWARENESS
PERCEPTION
VALUES
DECISION-MAKING
POVERTY

Title DO ITI

Introduction

Students need opportunities to try on new behavior. This activity encourages involvement in the community and provides an experience base for both students and teachers.

Time Varies with the action

Materials Copies of Handout 30, "Do Iti"

Procedure

Ask each student to select something from the "Do Iti" list. The activity is that simple, but here are some variations:

1. Place the "Do Iti" ideas on note cards and ask students to select activities to do in groups (either small groups or the entire class as a group).

2. Ask the class to brainstorm other "Do Iti" activities and select one or more of them to do.

ORGANIZATIONS WITH INFORMATION ON FOOD AND HUNGER

African-American Institute, 832 United Nations Plaza, New York, New York 10017

Agency for International Development, Office of Public Affairs, Department of State, Washington, D. C. 20523

American Freedom from Hunger Foundation, 1717 H Street, N. W., Washington, D.C. 20006

American Universities Fieldstaff, 3 Lebanon Street, Hanover, New Hampshire 03755

Center for Teaching International Relations, Graduate School of International Studies, University of Denver, Denver, Colorado 80208

Center for Global Perspectives, 218 East 18th Street, New York, New York 10003

Food and Agriculture Organizations (FAO), Freedom from Hunger/Action for Development, Via delle Terme di Caracalla, Rome 00100, Italy

Foreign Policy Association, 345 East 46th Street, New York, New York 10017

Management Institute for National Development (MIND), 230 Park Avenue, New York, New York 10017

National Council for the Social Studies, 1201 16th Street, N. W., Washington, D. C. 20006

National Association for Foreign Student Affairs, 1860 19th Street, N. W., Washington, D. C. 20009

Overseas Development Council, 1717 Massachusetts Avenue, N. W., Washington, D. C. 20036

Population Council, 245 Park Avenue, New York, New York 10017

Population Crisis Committee, 1730 K Street, N. W., Room 713, Washington, D. C. 20006

Population Reference Bureau, 1755 Massachusetts Avenue, N. W., Washington, D. C. 20036

United Nations Fund for Population Activities, 485 Lexington Avenue, New York, New York 10017

U. S. Catholic Conference, Campaign for Human Development, 1312 Massachusetts Avenue, N. W., Washington, D. C. 20005

U. S. Committee for Unicef, 331 East 38th Street, New York, New York 10016

World Bank Publications, 1818 H Street, N. W., Washington, D. C. 20433

Zero Population Growth, 1346 Connecticut Avenue, N. W., Washington, D. C. 20036

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EVALUATION QUESTIONNAIRE

The Center for Teaching International Relations is interested in receiving your comments regarding these materials. Please fill out this questionnaire and return it to the address below.

1. Which of the activities in Teaching About Food and Hunger did you find most useful and why?

2. Which of the activities did you find least useful and why?

3. What suggestions do you have for improving this packet?

If you have materials on food and hunger that you or your school district have developed and wish us to look them over and consider them for publication, feel free to send us copies.

Center for Teaching International Relations
Graduate School of International Studies
University of Denver
Denver, Colorado 80208

HANDOUT 1

WHAT'S BEST

Listed below is a set of items. Your task is to rank, in order, these items in terms of their importance to you. Place the number 1 by the most important item, the number 2 by the second most important, and so on through 18, the least important.

RANKING	ITEMS
_____	Telephone
_____	Job (unskilled)
_____	Job (skilled)
_____	Automobile
_____	Television
_____	Shelter (plumbing and running water)
_____	Ability to read and write
_____	High School Diploma
_____	Good Health
_____	Positive attitude
_____	Welfare
_____	Balanced diet
_____	Guaranteed income
_____	Family
_____	Friends
_____	Credit card
_____	$100
_____	Free transportation (to and from work)

1

Conscious and rational

Strong Pulse

Able to walk

Bruises on head

Left arm broken, bone exposed

2

Conscious and rational

Strong pulse

Able to walk

Bleeding lightly from face and scalp cuts

Second degree burns on right forearm

3

Conscious and dazed

Strong Pulse

Able to walk

Glass cuts on face and right shoulder

Right eye lacerated

- - - -

5

Conscious but hysterical

Weak, rapid pulse

Bruises on face and head

Left leg broken above and below knee

6

Conscious but hysterical

Weak rapid pulse

Light bleeding from nose and mouth

Several teeth missing, jaw hanging down

Lacerations on face and right shoulder

7

Unconscious

Strong, regular pulse

Bruises on face and head

Second degree burns left shoulder and arm

8

Conscious and dazed

Weak rapid pulse

Face lacerations - bleeding from nose

Second degree burns to lower left leg

9

Unconscious

Strong regular pulse

Dislocated left arm

Second degree burn on forehead and scalp

Left leg broken below knee

10

Unconscious

Weak, rapid pulse

No apparent bruises or lacerations

No broken bones

11

Conscious and Rational

Strong, rapid pulse

Face lacerations

Deep bruises on back - no feeling below waist

Third degree burns on hands

12

Unconscious

Weak, rapid pulse

Heavy bleeding inside right thigh

First degree burns on back

13

Conscious but hysterical

Weak, rapid pulse

Moderate bleeding from lower abdomenal puncture wound

First degree burns on chest and left arm

Third degree burns on face

14

Conscious but dazed

Weak, rapid pulse

First degree burn on hands

First degree burns on left leg below knee

Second degree burns on right leg from hip to ankle

Heavy bleeding inside left calf

15

Concious but hysterical

Weak, rapid pulse

First degree burns on abdomen, chest, face, and arms

Broken upper right arm with bone exposed and bleeding heavily

---

16

Concious and rational

Weak, rapid pulse

Severe bruises on left arm and shoulder

Left forearm crushed with moderate bleeding

Crushing injuries to left hip with multiple fractures of pelvis and leg.

Moderate bleeding from lacerations on left thigh.

17

Conscious but dazed

Weak, rapid pulse

Severe bruise on neck and throat

Labored, rasping breathing

Lacerations on face and left shoulder

18

Unconscious

Faint, rapid pulse

Second and third degree burns over upper body above the waist

Multiple fractures of left hip and pelvis

19

Conscious and rational

Strong, regular pulse

Able to walk

No apparent injuries

- - - -

21

Unconscious

Faint, rapid pulse

Severly mangled legs

Swelling of the abdomen

22

Unconscious

Faint, rapid pulse

Puncture wound in right chest

Gasping respiration

Multiple fractures of right arm

23

Unconscious

Weak, irregular pulse

Labored, difficult breathing

Slight bruises on face and chest

First and second degree burns on hands and forearms

24

Conscious but hysterical

Faint, rapid pulse

Labored difficult breathing

Puncture wound in upper abdomen - heavy bleeding

25

Conscious and rational

Weak, rapid pulse

Slight bruises and lacerations on face and scalp

CALORIE COUNT LISTING

(Estimates. Compiled from numerous sources.)

Meat and poultry (most meats and poultry figured here as lean, all visible fat trimmed off, about 60 calories per ounce):

bacon, fried crisp, 2 slices	95
beef, roast, lean, 4 oz.	210
beef, hamburger, lean, broiled, 4 oz.	245
beef, potpie, 8 oz.	460
beef, steak, lean, broiled, 4 oz.	235
bologna, 4" medium slice, each slice	85
chicken, turkey, broiled, 3 oz.	180
chicken, turkey, drumstick and thigh with bone, fried, 5 oz.	275
frankfurter, 1 medium size	155
ham, smoked, 3 oz.	290
ham, canned, all lean, 2 oz.	170
lamb, chop, broiled, lean only, 2.5 oz.	140
lamb, leg, lean, 2.5 oz.	130
pork, roast, lean only, 2.5 oz.	175
pork, sausage, 4 oz.	340
tongue, beef, 3 oz.	205
veal, cutlet, broiled, 3 oz.	185
veal, roast, lean, 3 oz.	280

Fish and Shellfish:

bluefish, baked, broiled, 3 oz.	135
clams, medium, each	9
crabmeat, 3 oz.	90
haddock, fried, 3 oz.	135
mackerel,broiled, 3 oz.	200
oysters, medium, each	12
salmon, canned, drained, 3 oz.	120
sardines, canned, drained, 3 oz.	180
shad, baked, 3 oz.	170
shrimps, medium, each	10
swordfish, broiled with butter, 3 oz.	150
tuna, canned, drained, 3 oz.	170

Vegetables:

asparagus, medium, 2 spears	7
avocado, medium, half	185
beans, baked and canned types, 1 cup	320

beets, 1 cup	70
broccoli, 1 cup	45
Brussels sprouts, 1 cup	60
cabbage, raw, shredded, 1 cup	25
cabbage, cooked, 1 cup	45
carrots, raw, 5½", each	20
carrots, cooked, 1 cup	45
cauliflower, cooked, 1 cup	30
celery, 8" stalk, raw	5
corn, cooked, 5" each	65
corn, canned, 1 cup	170
cucumbers, 7½" each	25
lettuce, 5" compact head, 1 lb.	70
lettuce, 2 large leaves	5
lima beans, 1 cup	150
mushrooms, 1 cup	30
onions, raw, 2½"each	50
onions, cooked, 1 cup	80
parsley, raw, chopped, 1 tbsp.	1
peas, fresh, cooked, 1 cup	110
peas, canned, frozen, drained, 1 cup	80
potatoes, medium, baked, with peel	105
potatoes, medium, backed, without peel	90
potatoes, medium, boiled	90
potatoes, French-fried, 2"x½", each	15
potatoes, mashed, milk,no butter, 1 cup	145
potato chips, 2" medium, each	11
radishes, raw, medium, each	3
sauerkraut, drained, 1 cup	30
spinach and other greens, 1 cup	45
squash, summer type, 1 cup	35
squash, winter type, 1 cup	95
string beans, 1 cup	35
sweet potatoes, medium, baked	155
sweet potatoes, medium, candied	295
tomatoes, raw, medium	30
tomatoes, canned, 1 cup	45
tomato juice, 1 cup (8 oz.)	50

Fruit:

apples, raw, medium	70
apple juice, 1 cup	125
applesauce, canned, sweetened, 1 cup	185
apricots, raw, each	20
apricots, canned in syrup, 1 cup	220
bananas, medium, each	85
blueberries, blackberries, 1 cup	85
cantaloupe, 5" medium, half	40
cherries, 1 cup	65
cranberry sauce, canned, 1 cup	550

dates, pitted, 1 cup	505
figs, dried, 2"xl" large, each	60
fruit cocktail, canned in syrup, 1 cup	195
grapefruit, 5" medium, half	55
grapefruit juice, fresh, 1 cup	95
grapes, 1 cup	85
grape juice, bottled, 1 cup	165
lemons, medium, each	20
oranges, medium, each	65
orange juice, fresh, 1 cup	110
peaches 2" medium, each	35
peaches, canned in syrup, pitted, 1 cup	200
pears, 3" medium, each	100
pineapple, fresh, diced, 1 cup	75
pineapple, canned in syrup, 1 cup	205
plums, 2" medium, each	30
prunes, cooked, unsweetened, each	17
prune juice, canned, 1 cup	170
raisins, dried, 1 cup	460
raisins, 1 level tbsp.	30
strawberries, fresh, 1 cup	70
tangerines, 2½" medium, each	40
watermelon, 4"x 8" wedge	120

Dairy Products, Eggs, Fats, Oils, Dressings

butter, 1 cup (2 ½-lb. sticks)	1605
butter, 1 pat or square	50
cheese, American, 1" cube	70
cheese, American, process 1 oz.	105
cheese, cottage, creamed, 1 oz.	30
cheese, farmer, pot cheese, 1 oz.	25
cheese, cream, 1 oz.	105
cheese, Roquefort-type, 1 oz.	105
cheese, Swiss, 1 oz.	105
cream, light, 1 cup	525
cream, light, 1 tbsp.	35
cream, heavy, 1 tbsp.	50
eggs, large, cooked without fat, each	80
eggs, scrambled, fried with butter, each	115
eggs, white only, raw, each	20
eggs, yolk only, raw, each	60
milk (cow's), whole, 1 cup (8 oz.)	165
milk, skim, nonfat, 1 cup	90
milk, buttermilk, cultured, 1 cup	90
margarine, 1 cup (2 ¼-lb. sticks)	1615
margarine, 1 pat or square	50
oils, cooking and salad-corn, cottonseed, olive, soybean, 1 tbsp.	125
salad dressings, French, 1 tbsp.	60
salad dressings, mayonnaise, 1 tbsp.	110
salad dressings, mayonnaise-type, 1 tbsp.	60

salad dressings, Russian, 1 tbsp.	75
yogurt, plain, 1 cup	120
Bread and Grain Products:	
bread, all types, plain, toasted slice	60
cereals, cooked, average type, 1 cup	105
cereals, dry unsweetened, average, 1 oz.	110
crackers, graham, medium, each	28
crackers, rye wafers, 2"x 3½", each	25
crackers, saltines, 2" square, each	23
macaroni, spaghetti, cooked, 1 cup	155
muffins, 3" size average, each	140
noodles, egg, cooked, 1 cup	200
pancakes, 4" each	55
rice, cooked, 1 cup	200
rolls, medium size, average, each	130
waffles, average size, each	240
Desserts, Sweets:	
cakes, angel food, 2" sector	110
cakes, chocolate layer, 2" sector	420
cakes, cupcake, 2 3/4", with icing, each	160
cakes, plain, 3"x 2"x 1½" piece	180
cakes, sponge, 2" sector	115
candy, caramels, fudge, 1 oz.	120
candy, chocolates, milk or dark, 1 oz.	145
cookies, fig bar, small, each	55
cookies, average type, 3" round, each	110
chocolate syrup, 1 tbsp.	20
doughnuts, medium, plain, each	135
gelatin dessert, ½ cup	80
gelatin dessert, ½ cup sugar-free	10
honey, 1 tbsp.	60
ice cream, ½ cup	200
ice cream soda, average size	350
ice milk, 1 cup	285
jams, jellies, preserves, 1 tbsp.	55
pies, apple, other fruits, 4" sector	330
pies, custard, pumpkin, 4" sector	265
pies, lemon, meringue, 4" sector	300
puddings, custard, cornstarch, 1 cup	275
sherbet, ice, ½ cup	120
sugar, granulated, 1 tbsp.	16
sugar, granulated, 1 cup	770
syrup, 1 tbsp.	55

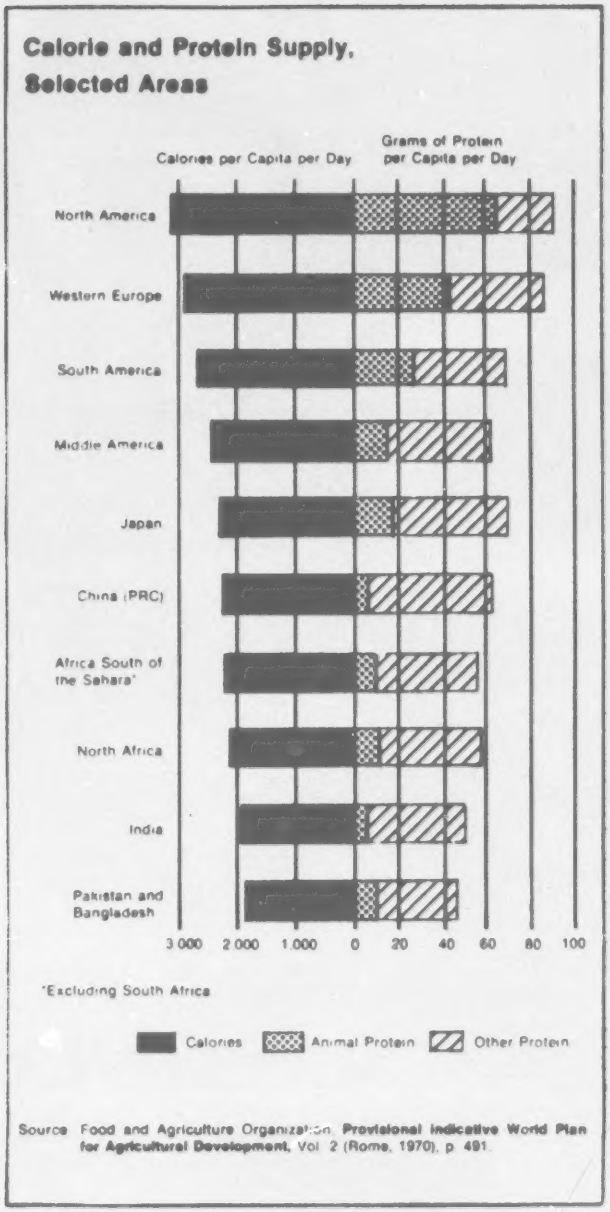
Miscellaneous:

beverages, coffee, tea, plain	0
beverages, beer, 8 oz.	110
beverages, cocktail, average	150
beverages, gin, Scotch, vodka, whiskey, average 1 oz.	75
beverages, carbonated, ginger ale, 8 oz.	80
beverages, carbonated, cola-type, 8 oz.	105
cocoa, cup	235
ketchup, chili sauce, 1 tbsp.	15
olives, green and ripe, large, each	9
nuts, peanuts, roasted, shelled, ½ cup	420
nuts, cashews, pecans, walnuts, ½ cup	375
peanut butter, 1 tbsp.	90
pickles, dill 4", sweet 3" each	18
pizza, cheese, 6" wedge	200
soup, bouillon, broth, consomme, 1 cup	10
soup, chicken, tomato, vegetable, 1 cup	80
soup, creamed, asparagus, mushroom, 1 cup	200
soup, rice, noodle, barley, 1 cup	115

HANDOUT 4	MENU DESCRIPTION	TIME TO PREPARE	COST	COMMENTS FROM FAMILY
DAY 1				
DAY 2				
DAY 3				
DAY 4				
DAY 5				

-83-

HANDOUT 5



NOTE: Average Daily Requirements

Calorie: 2700
Protein: 60 grams

HANDOUT 6

food activities

1. Describe in writing a starving person, an overfed person. (What he looks like, how he feels, what he or she does.) Do this for a child and an adult.

2. Compile a list of the largest food manufacturers (General Foods, General Mills, Beatrice Foods, etc.) and the products they sell. Find out what percent of items on the shelves in your supermarket come from these large corporations. (The business section of a good library is the place to begin for this research. Trade journals such as Food Engineering, Meat Processing, and even Advertising Age are also useful. Write for corporate reports.)

3. Make a listing of some of your favorite meals. Are they well balanced? Prove it. Rank order these from those you would give up first to those you would give up last.

4. Make a report on the starving nations of the world. Where are they? Why are they short of food? What can and/or should be done?

5. You are a reporter at the world food conference in Rome. Write three articles for a newspaper covering the important issues and nations attending.

6. Compare the cost of a "convenience" food with the price of its individual components if bought separately--for example, a tuna and noodle casserole. Determine how much time, if any, the pre-packaged item saves.

7. Plan the meals for your family for one day (or one week). Make a list of the items you would need for these meals. When you are at the grocery store find the cost of each item. Find the total cost for the day's meal. NOW plan meals for a week on a welfare-poverty diet of $1 per day per person. What exactly can you buy with that money and are the things they plan to eat each day nutritious?

8. What is organic food? What is health food? Are either of these better for you? Why are they better for you?

9. Find out what are the 10 most commonly eaten foods around the world. These would be the basic foods such as wheat, beef, corn, etc. and not foods like spaghetti.

10. How does the body break down food into different parts? For example: protein, carbohydrates and fats.

11. Presentation on cultural foods and drinks around the world. How are they similar and how are they different?

12. Food taboos. Do we have any? What are some of the taboos around the world?

13. How does climate effect what kinds of food can be grown there? Make a list or draw a map showing the major foods of each climate.

14. Map or diagram the complete path of a food from its original source to the dinner table. What happens at each stage?

15. What has been the effect of insecticides and fertilizers on the food industry and the consumer?

16. Interview people in your community who work with food or food products. Ask them to explain why the prices of food are rising so rapidly. Do they think we should help the poor countries with their food problems?

17. Do a food collage that has a message or theme.

18. Test advertising claims made for items sold in supermarkets. Compare the picture on the package or label with the real thing inside.

19. Write a report about different farming methods around the food.

20. Do a project that will raise money for food distribution to the poor in America or in other parts of the world.

21. Do a report on the hungry in America. In what ways are they similar or different from the hungry in the rest of the world?

22. Make a scrap book of articles you can find in the newspapers and magazines related to food or population. Classify the articles into different groups.

23. What will food be like in the future? Read some science fiction books or stories to get some ideas. Talk to some people in the food business.

24. Make a chart of the jobs or occupations there are that have something to do with food at any stage. Have your chart discuss salaries, job activities, and whether there are openings in the field as well as any other item you would like to chart.

25. What are the diseases caused by the lack of food? Describe what happens to the human body.

26. Investigate several diets that people use to lose or gain weight. (This may include one of the many kinds of "starvation" diets.) Figure out how many calories are consumed with these diets. Are these diets nutritionally adequate?

27. Describe something to eat. You must use all of your senses. Do not give the name of the food being consumed.

28. Find out the purpose of the following government agencies in regulating food: Food and Drug Administration, Food and Agriculture Organization, Federal Trade Commission, and Health, Education and Welfare.

29. Interview some of the grocery store shoppers you know to find out which items have greatly increased in price over the past year. Find out how much the item costs now and how much it cost before the price increases.

30. Write a report on UNICEF. What does it have to do with food?

31. Write a cow's view of a slaughter house. Write it in the first person.

32. National foods and drinks around the world. List them.

33. Write the complete history of a food from the earliest times to the present.

34. Do a report on the various kinds of instant foods such as dehydrated, freeze-dried, etc.

35. How does food spoil?

"RAT SMART THING"

Mr. Latta. I yield to the gentleman from Virginia.

Mr. Broyhill of Virginia. Mr. Speaker, the gentleman made a very clear statement on how this rat bill discriminates against a lot of rats in this country. The committee report also shows that the bill discriminates against 97½ percent of the rats.

But I think the most profound statement the gentleman made is the fact that it does set up a new bureau and sets up possibly a commissioner on rats or an administrator of rats and a bunch of new bureaucrats on rats. There is no question but that there will be a great demand for a lot of rat patronage. I think by the time we get through taking care of all of the bureaucrats in this new rat bureau along with the waste and empire building, none of the $40 million will be left to take care of the 2½ percent of the rats who were supposed to be covered in the bill.

Mr. Speaker, I thing the "rat smart thing" for us to do is to vote down this rat bill "rat now."

Mr. Latta. I may say to the gentleman that when he raises the question of discriminating between city and country rats, it also discriminates against persons suffering from bites from other animals.

Forgetting about the rodents for a moment, it was mentioned by the gentleman from Hawaii that we have over 1,000 rat bite cases in the United States in a year's time.

How about the snake bite cases?

If we are going to start eradicating all the rats--how about the snakes in the West? How about bugs? You can go into homes and apartment buildings here in the city of Washington and find bugs galore. What are you going to do about the bugs? Are we to forget the people bitten by bugs? Should we start a bug corps?.

Mrs. Griffiths. . . . Before this bill becomes too funny, I would like to say a few words for it. I am in support of this bill, Mr. Speaker. When I first came to this Congress I asked the Library of Congress how much this Nation had spent on defense in its history. They put some Ph.D's to work on the subject, and after 3 months replied that at that time--13 years ago--we had spent more than $1 trillion on defense. I observed the other day, when we had the Defense appropriation bill--which as I recall was for more than $75 billion--there was only one person who voted "No."

I would like to point out to those who may not be aware of it or to those who may have forgotten it, that rats are Johnny-come-latelys to recorded history. They were unknown in the ancient

cities of the world. They came in out of the Arabian deserts about the 12th century, and from that day to this they have killed more human beings than all of the generals in the world combined. They have made Genghis Khan, Hitler, and all the other men look like pikers. Man has attempted to kill them and he has won a few battles, but he has lost the war.

The only enemy that has ever really killed rats is other rats.

For the benefit of those who may not know it, the average rat lives 3 years. It has a rootless tooth that grows 29½ inches in those 3 years. They have been known to cut through 4 feet of reinforced concrete.

All of the methods that one could possibly use cannot conceivably kill off more than 98 percent of the rats in one block. If there are left two males and 10 females, there will be 3,000 rats in 1 year to replace those that have been killed.

Perhaps Members think it does not make any real difference, and perhaps they think this is really a local problem, that it is a family problem, and why not get some rat poison and kill the rats in the household?

I should like to remind the Members who sit here in this body that they eat in restaurants night after night, and that all that can be done in this Capitol cannot control the rat population.

Rats are a living cargo of death. Their tails swish through sewers and over that food we eat. Their stomachs are filled with tularemia, amoebic dysentery. They carry the most deadly diseases, and some think it is funny. Some do not want to spend $40 million.

Mr. Speaker, if we are going to spend $79 billion to try to kill off a few Vietcong, believe me I would spend $40 million to kill off the most devastating enemy man has ever had. . . .

Congressional Record, House of Representatives, July 20, 1967, pp. H 9113-9120

HANDOUT 9

SUPERMARKET TASKS

Visit a local supermarket and . . .

1. Find the most costly food item per ounce.

2. Find the food with the most protein per ounce. How much does it cost?

3. List all the different food preservatives you can used in food items sold in the store.

4. List as many items as you can that are owned and/or manufactured by these companies:

   General Mills
   Safeway
   Proctor and Gamble
   General Foods

5. Find the least expensive food item in the store.

6. List all of the ingredients (according to the labels) of at least <u>five</u> canned goods. Make a separate list of all the ingredients in your first list that you know little or nothing about.

7. Find out how much per pound you would have to pay for coffee in any <u>three</u> brands of "international" coffees.

8. Get together with two other students and list all the food items you can find in the store that you consider NOT essential to a well-balanced, nutritious diet. Optional: keep track of how much these "non-essential" food items cost. Total the costs.

9. Bring in several items from the local supermarket. At least 10 items. Have students price the items on a sheet of paper as you describe them. Add the totals and determine which students came the closest to the actual price of the 10 items. Discuss.

HANDOUT 11

connect the dots

- Research
- Grasslands
- Motivations
- Drainage
- Plant Pests
- Roads
- Administrators
- Religion
- Unemployment
- Soil
- Topographical Surveys
- Local Storage
- Heavy Equipment
- Fertilizers
- Cattle Control
- Statistical Development
- Forests
- Program Coordination
- Markets
- Climate
- Irrigation
- Land Tenure
- Languages
- Population Increase
- Water
- Soil Surveys
- Plant Breeding
- Politics
- Foreign Exchange
- Cooperatives

According to many scientists, this is only half the factors. Can you add others?

Food Crisis Conference

Possible Outline

I. Overall Goal: Reform of the Food systems

A. Explore how systems can be made more responsive

1. For example, certification by private groups for their constituents.

a. Would this require changes in regulations or registration?

b. Is this something which can be handled administratively?

B. Workshops on specific issues resulting in definite plans for corrective action.

II. Participants

A. Consumers
B. Regulations experts
C. Decision-makers
D. Producers
E. Food Distributers

III. Topics to be addressed around the issue of reform

A. Food stamps
B. Food tax
C. Consumers Co-op
D. Cost of food
E. Quality of food
F. Food distribution systems
G. Food delivery systems
H. Meals for seniors
I. School lunches
J. Direct sale of food
K. Dissemination of food programs, information in a way in which recipients can understand them.
L. Dissemination of information on preparation of food.

IV. Results/Outcome of conference

A. Impact on State and National legislation regarding food systems.

B. Formation of nuclei of conference participants which would take back to communities the leadership and motivation needed to form pressure groups to effect needed change.

Use conference as a way of developing the "tool" to bring about reform of food systems.

C. Formulation of recommendations on solutions to alleviate food crisis to be presented to proper authorities.

D. Development of communication system for disseminating information from conference to all areas of the State.

E. Establish teams of conference participants to address (follow-up) specific issues when they return to their communities.

FOOD DAY SUGGESTIONS

what you can do

1. Organize a Food Day coordinating committee in your area. Contact other organizations and keep the press informed of your activities.

2. Coordinate a Food Day teach-in at your school or university.

3. Organize a local food co-op to lower food prices and insure food quality.

4. Establish a farmers' market where shoppers can buy produce directly from the farmer.

5. Plant community gardens on vacant city lots or unused church land.

6. Find out how many people eligible for food programs in your city or county are not receiving them. Start food stamp outreach campaigns or pressure the government to do so.

7. Encourage the land grant agricultural colleges in your area to research farming practices which are not capital, energy or chemical intensive.

8. Several states have banned corporate farming. Work for legislative protection of family farms in your state.

9. Do supermarket comparison price studies. Educate your neighbors and yourself about oligopolistic control of the food industry and its affects on diet and budget.

10. Does your state or city have a food tax? If so, work to eliminate it.

11. Experiment with changes in your diet. Try eating on a welfare allowance (16 cents per meal). Fast occasionally. Eliminate junk food from your diet. Try eating more whole grains and fresh, raw vegetables, less sugar and more vegetable protein. (See Diet for a Small Planet by Frances Lappe for a start.)

12. Evaluate your school lunch program and see how it can be improved.

13. Push for nutrition education in elementary, secondary, college, and medical school curriculums.

14. Demand that at least 50 percent nutritious food (milk, fruit, nuts) be offered in vending machines in school and government offices.

15. Urge TV and radio stations to provide public service time for nutrition and consumer education. (FOOD DAY national offices are preparing radio, TV public service announcements that will be available to local groups.)

16. Demand that government agencies limit junk food advertising for children and enact more informative food labeling regulations.

17. Educate yourself and your congressional representatives about the world food situation, including both domestic and international hunger.

HANDOUT 13

F O O D T I M E

DAY	GATHER FOOD	STORE FOOD	PREPARE FOOD	SERVE FOOD	EATING FOOD
DAY 1	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:
DAY 2	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:
DAY 3	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:

Handout 13 Cont. F O O D T I M E

DAY	GATHER FOOD	STORE FOOD	PREPARE FOOD	SERVE FOOD	EATING FOOD
DAY 4	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:

-100-

Handout 13 Cont.

DAY	TRAVEL RELATED TO FOOD ACTIVITIES	DISPOSING OF FOOD WASTE	MISCELLANEOUS	OTHER	OTHER
DAY 1	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:
DAY 2	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:
DAY 3	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:

Handout 13 Cont.

DAY	TRAVEL RELATED TO FOOD ACTIVITIES	DISPOSING OF FOOD WASTE	MISCELLANEOUS	OTHER	OTHER
DAY 4	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:	WHO: TIME SPENT:

HANDOUT 15

Personal Food Survey

1. What are three of your favorite foods? _____

   _____

2. How many meals a week do you eat outside of your home?

   1 2 3 4 5 6 7 8 9 10 or more

3. Listed below are reasons people give for eating. Place an X next to any reason you feel you have never had to use to eat. Place an 0 next to the three most frequent reasons you use to explain eating habits. Place a check next to the two reasons you think should be used to justify our eating habits.

   - - -survival
   - - -enjoyment
   - - -oral gratification
   - - -habit
   - - -social company
   - - -business
   - - -comfort
   - - -other

4. How often did you eat yesterday? (Count any time you ate something.)

   - - -not at all
   - - -once
   - - -twice
   - - -three times
   - - -four times
   - - -five times
   - - -six times
   - - -seven times or more

5. Have you ever been on a diet for a week or more?

   Yes _____ No _____

6. Which age group applies to you?

   _____ 1 - 10
   _____11 - 13
   _____14 - 18
   _____19 - 25
   _____26 - 36
   _____37 - 50
   _____51 - 60
   _____61 - 70
   _____71 - 90
   _____90 -

Questions:

1. Which of the above reasons for eating could be eliminated or reduced? Which should be eliminated or reduced?

2. Could you cut down on the number of times you eat each day? Do you think you should cut down?

3. How would you explain the choice of your three favorite foods?

4. How did different age groups compare in their eating habits? (You could compile survey results to facilitate discussion of this question.)

HANDOUT 18

Food Power

1. Rank order the following suggestions according to which you think is the best approach to world food distribution problems. For example: 1 indicates the suggestion you feel is best, 2 is the next best, and so on. Continue until you have made five choices.

_____(1) Return all of the unused US cropland to production

_____(2) Establish a world food bank to be built up by countries who have food and taken from by countries who don't have enough food.

_____(3) Establish a plan for globally-coordinated national grain reserve policies.

_____(4) Increase US technical and financial assistance for increasing the food production of the developing countries.

_____(5) Develop a long-term food aid policy in which countries with extra food give that food through an organization made up of many nations such as the World Bank or United Nations.

_____(6) Change food management and land ownership to allow for maximum government control of food production.

_____(7) Establish an international group to control fishing in the world's oceans.

_____(8) Give countries that depend on one crop or product special treatment in the world trade market. For example: one country's corn may sell at a higher price than a country that raises other crops also.

2. Questions for discussion: Power and Authority

   A. Who would or does have the power to put this idea into effect?

   B. Who would or does have the power to effectively prevent the implementation of this proposal?

   C. Who would be given the authority to see that the idea would be carried out?

D. Do those who have the authority to make decisions necessarily have the power to implement them?

3. Now rank order the suggestions again from 1 to 5 indicating which proposals you think are most likely to be implemented given the power and authority factors.

HANDOUT 19

GOOD NEWS

BAD NEWS

Handout 20

DEFICIENCY DISEASE	TYPE OF DEFICIENCY	MAJORITY OF VICTIMS	CAUSE	SYMPTOMS	RESULTS IF UNTREATED	TREATMENT
AVITAMINOSIS A	Vitamin/ Mineral	Asia, Latin America, & Indonesian ports. Children 6 months to 3 - 4 years	Lack of Vitamin A		Blindness	Large amounts of vitamin A found preformed in animal products and carotenes in vegetables
NUTRITIONAL ANEMIA	Vitamin/ Mineral	Expectant mothers and young children.	shortage of iron in the blood-stream		death	Addition of meat, liver, and other foods containing iron into the diet
RICKETS	Vitamin/ Mineral	Children	Vitamin D deficiency preventing proper absorption of calcium and phosphorous		Deformities of the skull, legs, spine, & pelvis.	Diet rich in vitamin D, found in large amounts in fatty fish, liver, butter, & sunlight
OSTEOMALACIA	Vitamin/ Mineral	Adults, usually pregnant or lactating women	Vitamin D deficiency preventing proper absorption of calcium and phosphorous		Deformities of the skull, legs, spine, and pelvis	Diet rich in vitamin D, found in large amounts in fatty fish, liver, butter, & sunlight

Handout 20 cont.

DEFICIENCY DISEASE	TYPE OF DEFICIENCY	MAJORITY OF VICTIMS	CAUSE	SYMPTOMS	RESULTS IF UNTREATED	TREATMENT
GOITER	Vitamin/Mineral		Iodine deficiency in the diet.		Fetal development & normal growth retarded. Enlargement of the Thyroid gland.	Addition of iodine into the diet.
KWASHIORKOR	Protein/Calorie	Southeast Asia & Africa. Children put on starchy adult diets right after weaning.	Lack of protein.	General apathy, edemic stomachs wasted muscles, discoloration & swelling of the skin (& sometimes peeling), diarrhea.	Retarded growth; greatly reduced resistance to other diseases, death	Special high-protein fluid feedings, containing skim milk protein & vegetable protein
MARASMUS	Protein/Calorie	Southeast Asia & Africa. Children put on starchy adult diets right after weaning.	Starvation	General apathy, edemic stomachs, wasted muscles, vomiting, and diarrhea.	Death from loss of body fluids.	Special high-protein fluid feedings, containing skim milk protein & vegetable protein.

Handout 20 cont.

DEFICIENCY DISEASE	TYPE OF DEFICIENCY	MAJORITY OF VICTIMS	CAUSE	SYMPTOMS	RESULTS IF UNTREATED	TREATMENT
BERI-BERI	Vitamin/Mineral	Asian countries where polished rice is a staple of the daily diet.	Lack of vitamin B, particularly the thiamine type.	Wasted limbs, paralysis of the limbs.	Heart failure, signs of nervous disorder.	Diet with high thiamine content.
PELLAGRA	Vitamin/Mineral	Common among those whose diet is made up mostly of maize	Lack of vitamin B, particularly the niacin type.		Diarrhea, dementia, and dermatitis.	Well-balanced diet with plenty of meat and green vegetables.

HANDOUT 21

Technological Answers

1. We can produce new varieties of plants and animals that can survive in places where there are no presently available foods.

2. We can create a world food market that emphasizes nutrition instead of fancy and misleading ways of packaging foods.

3. We can increase the amount of protein in plants and animals that are already in use today.

4. We can make nutritional ingredients for foods in our laboratories. This would make it possible to "boost" the nutritional value of many of the foods we presently eat.

5. We can recycle garbage and other wastes and make them into sources of protein for future crops and livestock.

6. We can make foods from a variety of things not usually considered edible: newspapers, magazines, wood chips, sawdust, and petroleum by-products.

7. We can cut down on food losses due to pests, spoilage, and marketing problems, and at the same time insure that we do not harm the environment.

8. We can start eating and producing food products that use more parts of plants and animals than are currently being eaten. Many of these parts are presently thrown away and are, hence, a wasted source of possible nutrition.

9. We can educate people to learn to eat food that they wouldn't ordinarily consider eating because of cultural reasons. (For example, convincing North Americans to eat dogs.)

Based on information from KAISER NEWS

HANDOUT 22

Words and Hunger

(Observer's sheet)

As your instructor shows the volunteer group the flash cards, quickly jot down any reactions (e.g., groans, moans, other sounds, facial expressions, words spoken in response to the cards, anything...) you observe about the group and its individual members.

	WORDS	REMARKS (your observations)
1.	book	_____
2.	chair	_____
3.	roast beef	_____
4.	pizza	_____
5.	picture frame	_____
6.	chocolate cake	_____
7.	planton	_____
8.	lamp	_____
9.	hamburger	_____
10.	meat-potatoes-gravy	_____
11.	television	_____
12.	roast turkey	_____
13.	corn-on-the-cob	_____
14.	popcorn	_____
15.	waterchestnuts	_____

HANDOUT 22 Cont.

16. magazine _____

17. doorway _____

18. hot soup _____

19. casserole _____

20. ice cream sundae _____

21. steak and eggs _____

22. smothered burrito _____

23. barbecued spare ribs _____

24. bottle _____

25. electric lights _____

26. spaghetti with meat sauce _____

HANDOUT 23

Role Description

For the last two years you have been working for AID as a food expert. You and a fellow expert have now been given the responsibility of deciding how money will be spent. You will have control over a budget of $100,000 for the next year. This is all the money you will have to spend for the entire year in your division which covers West African nations.

A number of requests for money have been received by your office already. You must now decide whether to fund any of these requests. You can give complete support or you can offer to pay for part of the project. You can also make suggestions on how the project could be improved. Remember, you will have to decide how much of the funds you wish to use now and how much you want to hold back for later projects.

HANDOUT 24

PROJECTS SHEET

Look at the projects. ALL relate to West African nations. Decide which, if any, you want AID to support. Also decide how much money you want to give the project. The total you could spend is $100,000.

PROJECTS THAT HAVE REQUESTED FUNDS

Project No.	Type of Activity	Amount wanted in U.S. $$	Amount AID to Support, if any
1	Shipment of fertilizer to Ghana for use by farmers using land that must be irrigated	60,000	
2	Development of a high school course in Nigeria on agricultural methods in tropical climates	15,000	
3	Transfer of 100 students to agricultural schools in the United States and Europe	50,000	
4	Loan to Togo and Dahomey to be used to buy food products available on the world market	80,000	
5	Purchase of tractors to be used to increase food production in 5 West African countries	100,000	
6	Training for researchers to conduct research on ways to increase the harvest of cereal crops such as rice, wheat, and corn	70,000	

HANDOUT 24 Cont.

PROJECTS THAT HAVE REQUESTED FUNDS

Project No.	Type of Activity	Amount wanted in U.S. $$	Amount AID to support, if any
7	Money to build part of a new regional agricultural college to be located in Tagos, Nigeria	150,000	
8	A program to double the well water in irrigated sections of 100 sq. miles of Ghana	60,000	
9	Seeds to be distributed to rural farmers throughout the region	10,000	
10	Develop a factory to turn cocoa beans into chocolate. Located in Ghana	300,000	

HANDOUT 25

THE PILL

1980

(UPI) The government has just announced a new discovery that will affect everyone on earth. The report states that in the next week every person will be given a supply of blue life pills. These pills contain all the nutrients and calories needed for a healthy existence. All other sources of food will be discontinued. Everyone in the world will have to take the pill three times a day. The government also mentioned the fact that enough of these pills can be produced in five factories to supply the entire world. It looks as though we can now see an end to world hunger.

HANDOUT 26

STUDIES REVEAL FOOD WASTE

Middle-income Americans waste more food than their poorer and richer counterparts, and daily large amounts of food and milk are tossed away by school children, according to studies published in the Denver Post.

The National Observer said in a story that millions of dollars worth of food are wasted by children and their parents in the United States. According to the weekly newspaper, the Tucson survey found that middle-income families waste 25% of the food they buy. Overall, 10% of food brought to city homes ended up in the trash, according to the study. Yearly, this value was estimated at as much as $11 million.

PROTEIN FOR 117

The Oregon study consisted of examining the lunch trash of about 3,000 children participating in school-lunch programs at nine schools. It was found that a full day's protein requirements for 117 children was in wasted milk alone. On a national scale it was projected--15 million children who eat hot lunches at schools yearly toss out 29 million gallons of milk valued at $45 million.

A group of students at Springfield High School, the Oregon study, was supervised by Conrad J. Roemer. "The waste documented in this study is largely the result of a deeply ungrained American attitude," was the conclusion.

Based on a foundation of national abundance and collective wealth without parallel in the history of the world, this attitude underwrites the total pattern of consumption for most "of us...we overeat, and if by chance we can't stuff it all down, we throw the rest away."

'WASTE LEGISLATED'

It pointed out that part of the wasted milk could be traced to federal legislation requiring a serving of at least ½ pint of milk per child. Saying it found unopened cartons in the garbage, the report draws the conclusion that to a degree "waste is legislated."

Anthropology students of Dr. William L. Rathje of the University of Arizona, carried out the Tucson study. They analyzed 600 bags of garbage each week from lower-, middle-, and upper-income neighborhoods for three years.

They found that city residents throw away about 9,500 tons of food each year--most of it edible. This figure amounts to about $9 - $11 million worth of food.

The "most significant waste" was with such staples as beef, vegetables and fruit, and most of this occurred in the middle-class neighborhoods, as the study showed. But the wealthy and the poor were more frugal.

EXAMPLES OF FOOD WASTE

REMEDIES FOR FOOD WASTE

HANDOUT 29

"HO-HUM, INTERESTING FACT, THAT'S A PROBLEM!"

1. The Chinese may eat a more nutritious meal than the average American.

2. The average American eats almost twice the protein his or her body can actually use.

3. You as a person under 20 living in the United States eat eight times more fat than the average person living in India.

4. Over 18 billion sold.

5. Clean your plate! Children are starving in India.

6. If you and other Americans ate 10% less meat it would release enough grain to feed 60 million people.

7. America has 6% of the world's people and consumes at least 40% of the world's resources.

8. Twenty-five percent of the food middle class Americans buy is wasted.

9. Kwashiokor

10. Many Americans are forced to eat pet food as a source of protein.

11. 31 flavors

12. Junk food has no nutritional value.

13. School cafeteria food

14. Sirloin steak, $8.95.

15. Two thirds of the world's population goes to bed hungry at night.

16. Spinach is good for you.

17. Eat your vegetables.

18. Banana split

HANDOUT 30

DO IT!

1. Get together with two or three other students. All of you eat on a total of $4.00 for 3 days.

2. Collect your families' food garbage for a week in a plastic bag. Bring it to class and weigh it.

3. Vending Machine Tasks:
   Visit at least 10 vending machines
   List all of the junk foods in machines
   List all of the non-junk foods in machines

4. Go through a waste basket and add up the amount of money spent on junk food.

5. Bring in pictures of machines involved in food production, distribution, preparation or consumption. Sort them.

6. Plan a menu using any 10 T.V. food commercials or any 10 magazine food adds.

7. Go pick up the forms for obtaining food stamps. Show them to the class. Would you qualify? Should people who meet the requirements on the forms get food stamps?

8. Find out and report how many calories you need for a well-balanced diet in a week. Add up the total calories you consume--find the difference.

9. Write a letter or talk to the manager of a fast-food chain restaurent telling him how he or she could improve service, cut down waste, provide well-balanced meals.

10. Go to a local supermarket and find out which items you can't purchase with food stamps and why.

11. Decide as a class the ten most essential food items needed for a healthy diet.

12. Visit a meat packing plant. Witness the process from the killing to the packaging. Find out what goes into the hot dogs. Compare to Upton Sinclair's The Jungle. Have things changed?

13. Go to a supermarket in a poorer section of town. Compare prices to your local supermarket. Do the same for a suburban store.

DO IT!

14. Do #12, only this time witness the processing of either poultry, fish, or pork.

15. Organize or contribute to a food bank for people who need it.

16. Plant and tend your own vegetable garden.

17. Find out which businesses, institutions or stores in your community waste the least food.

18. Find out if your community has a food co-op. Compare service and prices to your local store.

19. Visit all the fast-food service stores and find out how much food is sold in a week.

20. Spend at least one day on a farm working in the fields or caring for the animals.

21. Find out what foods are grown or produced in a 50 mile radius from your house.

22. Find out what are the food taboos in your family, religion, or ethnic group. Can these be explained?

23. Go see a movie or read a book about cannabalism (Donner Party, Survive).

24. Find evidence of all the factors in our society that make it easy to be fat.